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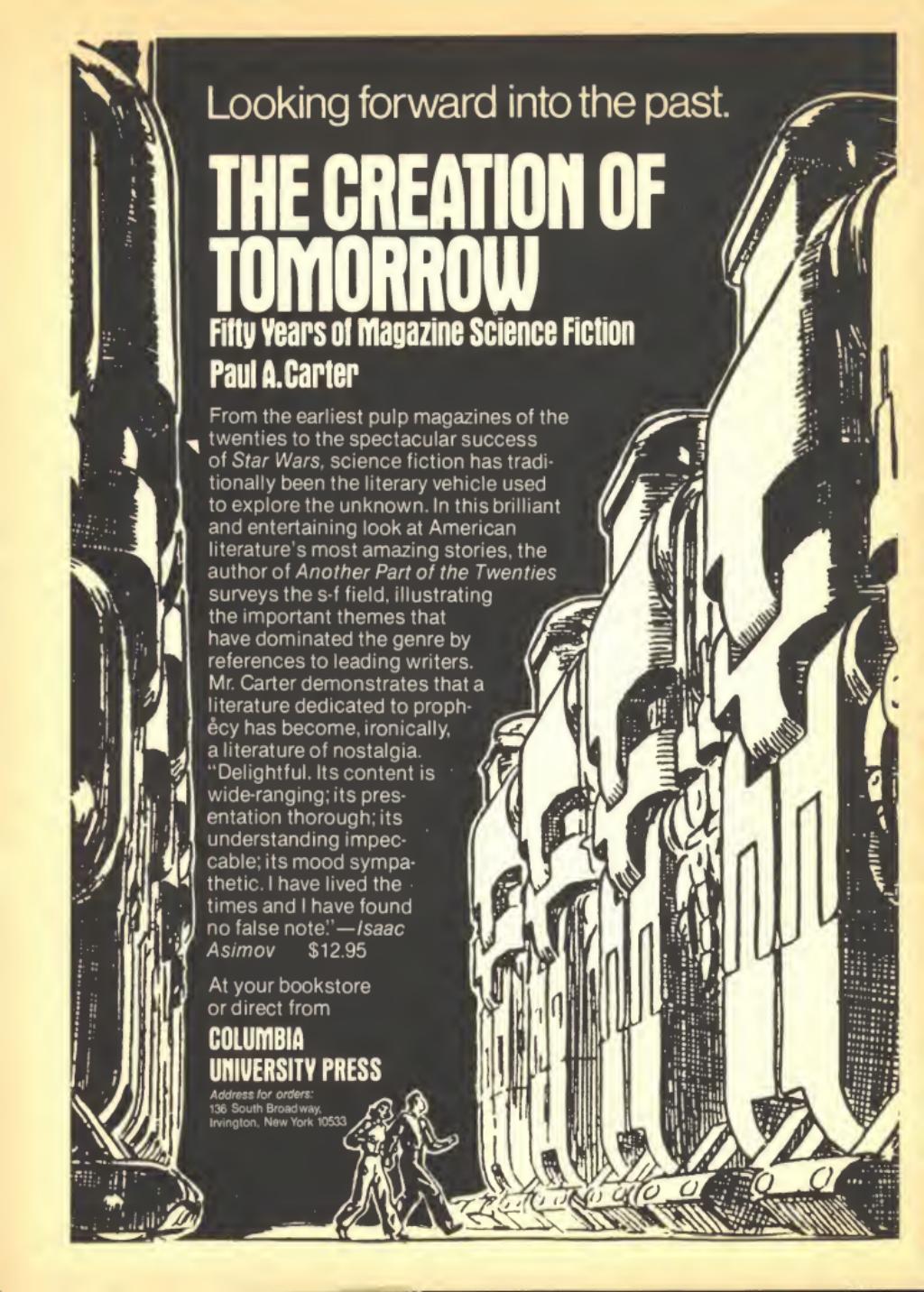
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Number Six

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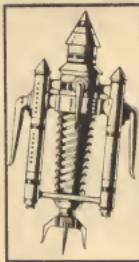
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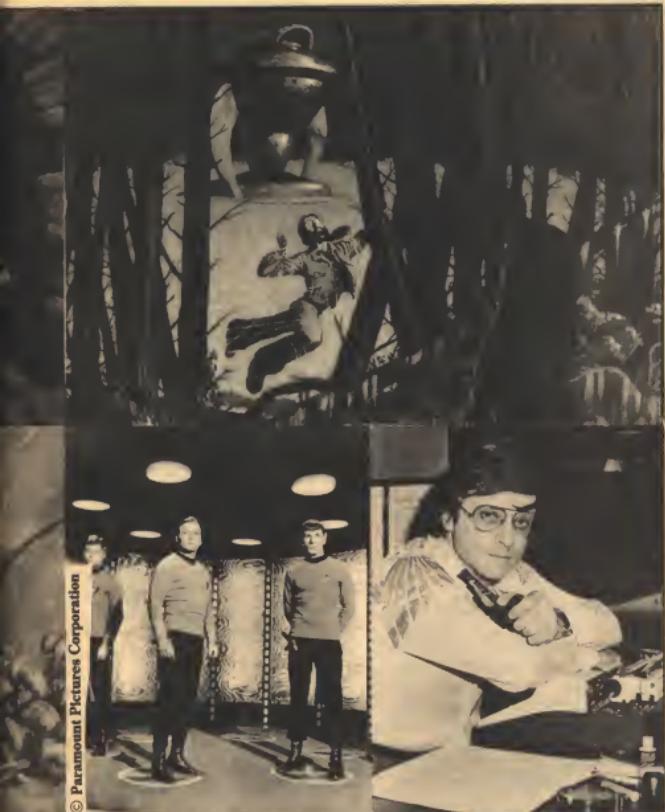
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Ron Miller has pictured a rather arid world overflowed by some rather snappy looking machinery.

**GALILEO/Magazine of Science and Fiction** is published bimonthly in January, March, May, July, September, and November, at 339 Newbury Street, Boston, Massachusetts 02115. Single copy price: \$1.50. Subscriptions: \$7.50 for 6 issues, \$12 for 12 issues. This issue published January 1978. All characters and settings contained in stories are purely fiction. The factual accuracy of non-fiction articles is the responsibility of the author. No responsibility is assumed for unsolicited manuscripts, but all submissions are welcome, no query necessary. All submissions should contain a self-addressed, stamped envelope. Application to mail at second-class postage rates is pending at Boston, Massachusetts, and at additional mailing offices. Advertising rates are listed on page 7.

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# Editorial

Charles C. Ryan



**S**

CIENCE FICTION, like all growing things, has always had a healthy belief in the future. Perseverance, ingenuity, sweat of brow and the scientific method have been the reliable tools of SF protagonists and their frontier hardiness, it's presumed, will one day bring homo sapiens to the stars.

This is a marked departure from how UFO cultists view the future and their vision is brought dismally into focus in the optically titillating film *Close Encounters of the Third Kind* produced by and for UFO believers.

The film's flawed plot purports enigma and awe are all that's to be gained from meeting the extraterrestrial; that belief is more important than logic in human destiny and that some wonderful magnificence hovering just overhead will provide answers for all questions rather than our own honest toil.

*Close Encounters'* pell-mell pace parries latent skepticism until its conclusion, but then there aren't enough answers. Its final offering is of the same fragile cotton candy consistency as *Star Wars'* heroic fantasy.

As a magician's illusion, *Close Encounters'* sleight of hand belays its basically anti-humanistic message. And it is that UFO philosophy which should bother all viewers. At one extreme, Von Daniken UFOlogists claim the pyramids and other historic wonders were shaped by alien magic rather than human imagination. At the other, UFOs are held to be new objects of worship which will majestically resolve all of the dilemmas with which modern civilization

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is fraught.

Baloney. If the human race is to scale the mountain peaks of the future, then it needs to dig its collective hands and feet into those granite flanks for the climb. A helicopter ride to the top isn't the same thing. The enigmas of the universe can be eventually resolved without a UFO's magical mystery tour. That's not being ethnocentric—it's called optimism.

There are many such sticky burrs under the UFO saddle and as long as the issue is one of belief rather than knowledge they will remain. For that reason, both believers and non-believers should take heart at the formation of a group called The Committee for the Scientific Investigation of Claims of the Paranormal. Comprising such distinguished doubters as astrophysicist Carl Sagan, psychologist B.F. Skinner, philosophers Paul Kurtz and Sidney Hook, and other academic and journalistic luminaries, their avowed goal is to determine the truth, if any, behind our modern myths. UFOs, pyramidology, astrology, Kirlian photography, biorhythms, parapsychology, etc. are all carefully examined in the group's twice a year publication, *Zetetic* ("skeptic" in Greek).

Skepticism is a necessary tool for scientists but it is also a healthy attitude for everyone else as well. Scientific investigation and day to day existence alike call for a reasonable balance of skepticism and open-mindedness. Without the former, we'd be easy prey for any charlatan; without the latter, we'd be incapable of change. A balance of both can mean sensible growth.

And, that balance can be found in

science fiction. The field will always entertain the possibility that one day extraterrestrials may actually be aboard one of those innumerable UFOs, but, at the same time, endorsement of UFOlogy will be withheld until some hard facts are in.

In the meantime, we at *Galileo* wish The Committee for the Scientific Investigation of Claims of the Paranormal good hunting in their quest for elusive truths.

**S**

INCE MY last editorial in the July issue, *Galileo*'s circulation has more than tripled, and I'd like to take this opportunity to welcome all of our new readers aboard what is becoming one of the industry's Horatio Alger stories. We have been lucky enough to survive and succeed at the same time two other new magazines suffered malfunctions at the launching pad. That success is largely due to the support from those readers who subscribed during our first year. We owe you our thanks, and by way of repayment, we still plan to make *Galileo* the best SF magazine available anywhere.

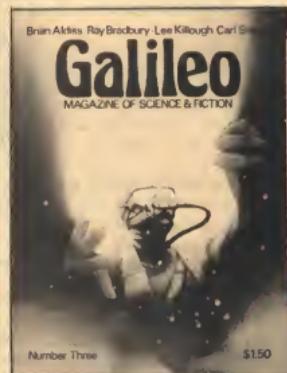
Towards that end, we would like your further assistance. In each issue, we've included a postage-paid envelope. Please feel free to use it. Suggestions and ideas for improvement are welcome, just jot them down, put them in the envelope, and pop it into the mail. A pat on the back or a growl; either way, let us know. And, of course, if you have a friend you'd like to share *Galileo* with, the envelope can be used to send a gift subscription—or extend your own.

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# Pro-File

## Our Authors

CLOCKWISE FROM TOP: David Gerold, C.D. Renmore, M. Lucie Chin, and John Kennedy.

THESE AUTHORS form an interesting, if disparate, group. The only thing they seem to have in common is that each has contributed to *Galileo Six*. One is an electrical engineer, another a professional artist. Still another has a particularly disagreeable job in a local hospital (sorry, no names). Two are established SF writers of inestimable influence, while three have only one piece or less in print. There is an Englishman. There is an Australian-turned-West German. And there is a native of Denver, Colorado. There are men and women, young and old, married and otherwise. Together they would make a fascinating dinner party. Whether the furniture would remain intact is, however, another question. And we never even touched on politics...

Whatever else Harlan Ellison has, he has nerve, and its latest manifestation is his story in this issue, "Django." He wrote it perched on a platform in the window of Boston's Avenue Victor Hugo Bookshop, just downstairs from *Galileo*'s editorial offices. That's right: this Famous Author sat for three days in a bookstore's window and pecked out a story. He even had writer's block until someone brought in a Django Reinhardt recording. Throughout, he smiled at old ladies, joked with students, signed books, and generally behaved in a way rare to Famous Authors these days. What is more, he seemed to enjoy himself. Need we list his accomplishments? He is a prolific and versatile writer who has written not only SF novels but TV and movie scripts, and a

host of "straight" writing as well (e.g., *The Glass Teat*, a collection of columns about TV that contains the best criticism of that medium ever). (Another note: he claims that he has sworn off TV scripts, "forever.") He has been listed by almost every young writer *Galileo* has published as a "major influence." And the 1978 Iguanacon has chosen him its Guest of Honor (for more on that and Ellison's latest cause, see this issue's "Star Chamber"). But you get the idea.

"The Ark of James Carlyle" is *Cherry Wilder*'s first story published in *Galileo*; she is, however, no newcomer to writing or SF. When Robert Silverberg met her at Aussiecon and assumed just that, he read her work and found himself "startled by the quality of her prose, which is... sophisticated and supple and altogether impressive," Ms.

Wilder was born and bred in Australia, but in 1976 pulled up roots and moved, with her husband (who is a "printer in the tradition of Gutenberg") and two children, to West Germany. Of Germany she says, "We have been to the Rhine, Köln, and Berlin, also Heidelberg. I am going mad and have dreams where everyone is talking a foreign language." Her first novel, *The Luck of Brin's Five*, was written half in Germany and half in Australia.

"The Best Is Yet To Be" is M. Lucie Chin's first published story; it concerns a woman who has lived for some 150 years by means of brain transplants, and who, in her ninth "life," is beginning to disagree with her doctors. Ms. Chin has only lately come to writing, it seems; she took her degree in painting and graphics and has worked

Authors



as a gallery director, silversmith, and etcher in New York City, where she lives with her husband. This background may explain the delightful spontaneous illustrations in her letters, but we leave to literary detectives and psychologists her comment that the idea for the story came to her "on the 3rd Avenue bus about 36th Street."

**John Kennedy** is another contributor who has only recently begun writing SF. "Nova In A Bottle" is the third story he has written, the second he has sold. But he is no stranger to the world of SF; he discovered Heinlein's *Red Planet* while wandering through his Junior High School library hoping to find comic books. (Fat Chance.) Because *Red Planet* was illustrated, he checked it out and has been hooked ever since. Among his favorite writers are Cordwainer Smith, Zelazney, Dick Kuttner, and Myamoto Muyashi. Mr. Kennedy is one of our few "rooted" writers: he was born, raised, and educated in Denver, where he lives with his wife, who also writes SF. He adds that he doesn't wear cowboy boots.

"On The Road" is Gregor Hartmann's contribution; it tells of one hitchhiker's rather out-of-the-way experiences in California. Mr. Hartmann himself is something of a mystery, to us at least. He has sent us no basic (vital statistic-type) information, only a very interesting letter from Japan; he is presently living in Tokyo. He recommends: the museum in Hiroshima's Peace Park, particularly the children's drawings; the Japanese media, because they "are not as provincial" as the media in the USA; approaching 10th century temples through bamboo groves; playing Go; and watching lime green spiders. He further notes that learning Japanese means relearning English: "Japanese, for instance, doesn't conjugate verbs for person... and you must infer whether I, you, he, or they is spoken of. It is tempting to say that the language subordinates the individual to the event. But I'm still in kindergarten."

Our non-fiction this issue deals with black holes and TV, no connection intended. "A Matter of Some Gravity" is an engaging and provocative set of speculations which, by holding scientists to their own definitions, suggests that we might live in a black hole. C.D. Renmore, author of the article, is an Englishman who lives near London with his wife and two children. He is a staff member of one of the larger Authors

academic colleges of the University of London. By training an electrical engineer, he has just switched fields to medical electronics research. Until two years ago, he had never written SF; now his second novel is nearly ready for typing.

"The Shades of Things to Come" is the second article in *Galileo's* new series, "Probe," a series of articles examining current trends and concentrations of money, talent, and taste in SF. (The first, by Alexei and Cory Panshin, appeared in *Galileo Five*.) **David Gerrold** was first known as the writer of the *Star Trek* episode, "The Trouble With Tribbles." His article assesses the current SF boom in television and film, and offers a few predictions. Mr. Gerrold is an indefatigable worker who, though not much past thirty, has produced thirteen published books, including several anthologies, at least three novels, and two books about *Star Trek*. He is currently at work on two trilogies; the first volume of the first, called *Moonstar Odyssey*, was published in 1977 by New American Library. He also writes a regular column on the media for *Starlog*.

Finally, we look once again at **Marvin Kaye** and **Parke Godwin**, authors of our

serialized novel, *The Masters of Solitude*. The second installment continues the saga of the Shando in this issue. For interested readers, Marvin Kaye (who had the original idea for the novel) has listed some "major philosophic sources." The ideas of Nietzsche, particularly those in *Twilight of the Gods* and *On the Genealogy of Morals*, are of prime importance. George Bernard Shaw's works, *Man and Superman* and *Back to Methuselah*, also contributed ideas. Other influences include Bertrand Russell's *Why I Am Not A Christian*, and, for the latter portion of the story, Michael Novak's *The Experience of Nothing*.

Last issue's "Profile" gave some details of Parke Godwin's chief source for *The Masters of Solitude*: it is witchcraft. Mr. Godwin hopes that he and his partner have succeeded in devising a society based on "witchcraft as a working, day-to-day way of life in which belief and practice are inextricable." He goes on to say, "That the 'villains' are Christians does not imply a distaste for Christianity—merely that the two could not and never will be able to co-exist, since one loves the earth while the other regards it as a bus-stop en route to Paradise."

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# The Shades Of Things To Come

David Gerrold

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CLOCKWISE: *Bionic Woman*, Wilma Deering, *Buck Rogers*, and *Wonder Woman*.

## □ PROBE □

**1** 977 WAS a breakthrough year for the science fiction movie. With *Star Wars* and *Close Encounters of the Third Kind*, science fiction has finally achieved financial respectability—not just at the box office, but in the stock market as well. We can expect to see a mini-boom of imitations in the months to come as more and more producers attempt—with varied success—to cash in on what they perceive to be the new trend. Television will most likely be in the forefront of that rush. 1978 may or may not be a breakthrough for science fiction on television; the medium has discovered the genre, but what that discovery will ultimately mean to the audience at home may very well be a mixed bag of goods.

Right now, every major studio has at least one science fiction television series in preparation, not to mention one or more big-budget science fiction pictures in the works. All of this activity, however, is not necessarily a cause for rejoicing on the part of science fiction fans. Those who care strongly about the genre would do well not to build their hopes too high for any individual project. The film industry must, of necessity, focus primarily on the mass-volume of mega-dollars as opposed to the lesser admissions of what would seem to be only a small eccentric minority. Science fiction fans are perceived as belonging to this latter category.

Hard-core science fiction fans are still considered to be borderline crazies. Very few producers have ever really tapped into the collective consciousness

of fandom (or even pro-dom) as a resource—despite the fact that the science fiction fans and writers, as a group, are probably the best gauge of all as to how successful or “commercial” a property may be. All too often, the attitude in the studio office is “the hard-core science fiction fans are going to see the film whether we get the science right or not—we have to please the mass audience first.”

Of course, with that kind of attitude, the science in the story never gets corrected—but it is not just the science fiction fans who are cheated, it is the mass audience as well, because ultimately all are given a false picture of the nature of science and the way human beings deal with it; a bad picture lies to everyone in the audience, science fiction fan or not. It is this inherent disrespect for the audience that has doomed many a project in the past, and will probably doom many more in the future. The commercial and artistic success of any project, science fiction or not, depends to a great deal on the attitudes of those producing it—not just their attitudes toward the material, but toward their audience as well.

The cynical theory about television's rush to science fiction is that it is a mad scramble to cash in on *Star Wars'* popularity. The even-more cynical theory is that science fiction is the only genre left that television has not already destroyed. Television has already exhausted the western, the crime show, and the doctor show. The situation comedy, which has always been one of television's mainstays, is starting to wear a little thin; ditto game shows,



variety shows, and talk formats. The only thing that television has not yet done to death is science fiction, and this too is about to be remedied.

Television, as a mass-medium, is not quite a third of a century old—yet, in that short space of time, it has had a greater effect on the human race and its collective perceptions about itself and the universe it lives in than perhaps all of the books ever written and published in all the years before. Television allows millions of people to share the same experiences simultaneously—whether those experiences be profound or banal, they are shared and they give us all a common heritage of memories.

Television could be a tool of incredible social growth—or merely an instrument of self-indulgent decadence. Historically, television has been a rear-view



mirror, doing shows about where we were yesterday instead of shows about where we might be going tomorrow. The track record of science fiction on television has been equally deficient. There have been exceptions, of course: shows like *Twilight Zone*, *Outer Limits*, *Star Trek*, and the occasional episode on *Night Gallery*, as well as the English-produced *The Prisoner*, are usually well-spoken of by serious science fiction fans. Shows like *The Immortal* or *The Invaders* are recognized as generally well-produced, but really little more than remakes of *The Fugitive*—all that's changed is the reason that the hero is being chased. Other shows, like *Lost in Space*, *Space:1999*, *Starlost*, and *Voyage to the Bottom of the Sea* are considered by the hard-core science fiction fans to be a waste of time. These

**David Gerrold**

latter shows may look like science fiction, but the resemblance is only superficial. The science, if any, is usually laughable; the emphasis is always on the menace confronting the heroes—it is almost always something visual and the justification for it rarely matters. The hero's problem rarely extends beyond destroying the menace or escaping from the jeopardy situation. Personal involvement on an emotional level is rarely seen—the hero never has to make a decision that hurts. This latter class of show is not food for thought so much as it is junk food for the eyes.

The Fall '77 television season has already seen the beginnings of the new science fiction trend. Disregarding the children-oriented shows like *The Six Million Dollar Man*, *The Bionic Woman*, *Wonder Woman*, and the now-cancelled

*Man From Atlantis*—which most fans have already classified as not worth serious attention—there is still some hope.

This past September saw the debut of *Space Academy*, a handsomely produced Saturday morning show, the most expensive show in kidvid history. It is very pretty to look at, the sets are well-designed, and the special effects are better than one might otherwise expect; but the storytelling is mundane, almost mindless, and that is its most telling failure. Yet, despite this, *Space Academy* is still a pretty good litmus of how far television science fiction has come in recent years. The show is proof that production values are finally being recognized as essential to a science fiction show's believability. *Space Academy*'s special effects, by the way, are being handled by Industrial Light and Magic, the same company that produced the dazzling effects for *Star Wars*.

The season's other big entry was a prime-time effort, *Logan's Run*, loosely based on the book and movie of the same name. *Logan's Run*, unfortunately, was an uneven effort and it has since been cancelled by CBS—despite the fact that its ratings were finally starting to improve, the high cost of the show did not justify continued investment.

The show was flashy, but often unsatisfying; the format involved Logan 5 and Jessica 6, runners from the City of Domes, and their companion, Rem, a robot—excuse me, an android. Rem was neither in the book nor the movie, but he is necessary to the TV series in that he can function as an all-purpose tool/scientist/computer, and you can't do a science fiction show without at least one person who understands what's going on.

The problem was that with Rem along, you almost didn't need Logan or Jessica—in fact, that was the show's biggest problem. Rem had become too strong a character. Logan and Jessica had no control over him; in too many episodes, it was Rem who was the instrument of the situation's resolution, not Logan—and yet, it was Logan who was supposed to be the hero. The show was beginning to look more like *Rem's Run* than *Logan's*.

The second problem with *Logan's Run* was that the stories were falling into a predictable format each week: "Civilization of the Week" (subtitle: "Change It Or Lose It.") It works like



this: Logan, Jessica and Rem—or whoever your heroes are; more than one show has used this format before—arrive at a place; sometimes they are still being chased by Francis, sometimes not; wondering if this new place will prove to be Sanctuary. Of course, it won't be, or the series is over—not only that, something about the way this place is organized poses a threat to their continued safety. Usually, it is some kind of technological tyranny that practices some kind of physical or mental control over its citizens. This control will now be used against our heroes unless they can find the one key "to topple the whole social structure. Naturally, they do. Nobody ever thinks to ask what kind of social structure is so flimsy that a single outsider can topple it in an hour?

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The special effects in *Logan's Run* were fairly simple—they were mostly computer-generated animations superimposed in, and all pretty much of a type: lines of energy, force-field fences, and matted-in flares and flashes.

The show was occasionally embarrassing, but mostly harmless fun. What integrity it did have, either as television or science fiction, was mostly due to Dorothy Fontana, story-editor, and Len Katzman, producer. The cast was uniformly competent: Greg Harrison as Logan, Heather Menzies as Jessica, Donald Moffatt as Rem, and Randy Powell as Francis. I rather enjoyed it, and I wish CBS had given it more chance to work its way up in the ratings—it did have good possibilities. \*Sigh\*

It is the Fall '78 television season that

will see the real science fiction "boom" on television, if current plans materialize—or "bust" as it all may turn out. The success of *Star Wars* has prompted all three of the networks and at least five major studios into developing science fiction properties of their own. Universal has two, so does Paramount; there are projects being developed at Warner Brothers and Columbia as well, not to mention Twentieth Century Fox.

Someday, of course, there will undoubtedly be a *Star Wars* series for television—but not until the film and all of its sequels have had a chance to earn their billions worldwide. Just as there was no *Planet of the Apes* television series until the last movie had finished its release to the theatres, neither will there be a *Star Wars* television show while there are still significant box office buck left in the market—so don't hold your breath waiting; it could be as long as ten years.

Until then, however . . .

**U** NIVERSAL-TV is preparing *Galactica* for ABC; the opening episode is planned as a three-hour special; each episode after that will be one hour. *Galactica* is being produced by Glenn A. Larsen (Executive Producer) and Leslie Stevens, who produced *Outer Limits*. The show takes place in the seventh millennium (the 69th century) and is the story of the survivors of the human race's most disastrous war, looking for the fabled planet called Earth—think of the Children of Israel who spent forty years wandering through the desert searching for the Promised Land.

*Galactica* is being described as "Wagon Train To The Stars." Industrial Light and Magic are doing the special effects for it; the show should be interesting to watch for its effects alone—whether the stories will justify viewer attention remains to be proven, but Leslie Stevens is well-spoken of by most science fiction writers and screenwriters who have worked with him, so the prognosis here is one of hopeful optimism. *Galactica* has set high goals for itself, and it will be interesting to see if the show can reach them.

Universal TV is also preparing *Buck Rogers in the Twenty-fifth Century* as an hour-long, episodic, prime-time effort for NBC. Executive Producer is Andrew J. Fenady; line producer is Dick Caffey. Some interesting and unique stories are in the hopper for this show, and the question here is whether the

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production values and the hardware (the scientific elements) will support these stories. The demands of television production, the economies necessary, the tight deadlines to be met, often force compromises that seriously affect the integrity of a science fiction show. Special effects are being handled by Wayne Smith and David Garber, both of whom worked with Doug Trumbull on *Close Encounters of the Third Kind*. We should see high quality in the visuals here.

But *Buck Rogers* also has a unique set of problems to deal with—its source material is a 1930's comic strip adventure, the name of which has become a cliché synonymous with "hokey sci-fi." How much of this original material must be maintained for story integrity and how much of it must be updated? And if there is considerable updating of the material, will it be consistent with the Buck Rogers tradition? Just what is the Buck Rogers tradition anyway? Did it actually exist, or was it as much in the reader's mind as it was in the comic strip? The production staff of *Buck Rogers in the Twenty-fifth Century* has been dealing with this problem since day one. Buck, of course, is still the hero of the series; we will also be seeing Wilma Deering, Barney, and Dr. Huer; but new characters are being added too, including an alien, a couple of computers, and a variety of robots. Buck will still be a twentieth century man who reached the twenty-fifth century via suspended animation; only now he is an astronaut instead of a pilot. The villains will include Killer Kane, Princess Ardal and Tigerman, but they are going to be set against a more believable future; the hardware and the backgrounds will be updated so as to make them more consistent with the science fiction visual sense that has been established in the seventies. On the other hand, there may be considerable carryover from the 1930 conceptions of Buck Rogers as well; at the time of this writing, no final decisions have yet been made.

Nostalgia buffs should not expect a glorious remake of the original so much as a new concept based on some of the same elements. The prognosis for *Buck Rogers* is guarded, but optimistic. If done well, it could be the one TV show that comes closest to evoking the same kind of magic as *Star Wars*.

Over at Paramount, there are also two series in preparation: the eagerly awaited return of *Star Trek*, and the

#### *now-resurrected War of the Worlds.*

As of this writing, the *Star Trek* sets are nearly complete; by the time this article hits print, the filming should be well under way—the on-again, off-again *Star Trek* movie is on again. The script that was intended as a two-hour kickoff episode will be used for the feature, and it should hit the theaters sometime before the end of 1978... maybe. This project has had more than its share of delays, postponements and changes.

The other scripts in preparation for *Star Trek* are expected to be filmed for a fall premiere of the new series; it is thought that the film will help the TV series and vice versa. The unique thing about the new *Star Trek* television series (if it goes) is that it is planned not for any of the existing networks, but for a new "forth network" that Paramount is trying to organize. The plan is to sell three hours of programming (an episode of *Star Trek*, and a first run movie) to local stations in various markets to be telecast on Saturday evenings—or at the station's convenience, depending on the market.

Gene Roddenberry is the Executive Producer, of course; Harold Livingston and Bob Goodwin are the line producers. All of the original cast is expected to return—Leonard Nimoy will not be back as Mr. Spock on a regular basis, but it is hoped he will be available for the movie, and for an occasional guest star role. The rest of the regular crew will be there in every show. Captain Kirk will still be in charge of the *Enterprise*—but the *Enterprise* will be newer, bigger, and "updated." The new bridge, for instance, seems less forbiddingly military. There will be three new regular characters: First Officer will be Will Decker, an Earthman; the new Navigator will be a bald female alien from a very sensual culture; and the new Science Officer will be a young full-blooded Vulcan named Xon (to be played by David Gauthreaux). Sulu will still be aboard, as will Chekov' (now head of Security), Uhura, Scotty and Bones. Nurse Chapel will be a Doctor in her own right, and even yeoman Janice Rand will be back aboard ship.

Quite a bit of time and effort is going into the production values of this new *Star Trek*. At \$450,000 per episode, it will be the second most expensive show in Hollywood (after *Buck Rogers*). A fellow named Mike Minor is doing extensive work in designing the look of the visuals, and the show promises to be

quite a bit more spectacular than in its first incarnation. The new engine room, for example, is three stories tall. The determining factor for the success of *Star Trek II*, however, will be the quality of its scripts.

Even in its best days, *Star Trek* was always a little bit uneven; there was a tendency to fall into certain bad habits and repeat them. But there isn't a fan in the country who won't be rooting for this new production to be the best it can, and you can expect the premiere episode of the new *Star Trek* to pull a whopping-big rating in those areas fortunate enough to receive it. Prognosis: enthusiastic, because *Star Trek* is an old friend.

The only thing working against *Star Trek* could be the high hopes and expectations of the viewers; they may be hoping for more than any show can possibly deliver—after all, *Star Trek* will be competing with their memories of its own glorious past, and the fans tend to remember mainly the good parts. *Star Trek* is the one show that everybody has to beat—especially *Star Trek II*.

*War of the Worlds* is a property that Paramount had planned to do some years ago; they even shot some test footage using the then-experimental Magicam system, which electronically matted actors into miniature sets of a scale otherwise unattainable, even for a major motion picture.

The idea has been reactivated because of the surge of new interest in science fiction; it springs loosely from the H.G. Wells property—except that this time, the invading aliens are not from Mars but from somewhere farther out. Probably, they will be less alien than in the feature film version that George Pal produced in 1953, because of the limitations enforced by a six-day-per-hour-episode shooting schedule. *War of the Worlds* is the show about which the least is known; if the quality of the episodes, however, matches that of the test reel shot a few years back, then it could also be one of the dark-horse winners of the science fiction sweepstakes.

There are other projects under way at other studios too, but at the time of this writing, most are still uncommitted efforts and any discussion of them would be premature. One, however, should be mentioned: John Mantley is preparing to produce a motion picture version of Isaac Asimov's *I, Robot*, with Harlan Ellison drafting the screenplay.



This project may also be the pilot for an eventual television series, and it is one to be anticipated with great hope. If it turns out a success, it will be an important one—and even if it's a disaster, it will still be a fascinating disaster.

Overall, it is going to be an exciting new television season for science fiction fans—the competition for the science fiction audience is going to be stiffer than ever, but it may very well be that there is enough audience interest to support *all* of these shows—if they're good enough.

The key to it, of course, is in the writing. All of the above-mentioned shows are going to have to deal with the same basic problems: production values, believability, and story concepts. Science fiction is a literature of ideas; it is a

field of endeavor in which any idea, *every* idea—no matter how crackpot it may seem on the surface—must be fairly considered, tested and explored. Science fiction as a genre is antithetical to dogma and dogmatic attitudes. Science fiction heroes refuse to pre-judge situations.

Television, on the other hand, is a medium of action. It demands interesting visual to keep its viewers watching; oftentimes every major element in a story will be sacrificed for the sake of a snappy visual pace. The result is that science fiction on television is not the same as contemporary written science fiction, but leans more toward "sci-fi"—that is, a pulp level of science fiction, the cheapest and gaudiest elements, and also the least thought-provoking.

Science fiction demands production values to be visually interesting, but television can't afford them—not on the scale that science fiction demands—and this too works against the success of science fiction on TV, because science fiction is at its best when it evokes the viewer's sense of wonder. Without spectacular imagery and effects, without spectacular sets, costumes and vistas, the sense of wonder is muted. To make up for this loss, careless producers often introduce extra "dramatic" elements—these are usually artifice: a deadline of some sort, an additional plot complication, or extra action merely for the sake of action. Often these elements lessen the story.

The key complaint of most science fiction fans, to date, is that most visual science fiction, whether for film or television, is not good science fiction because the people who are writing it and producing it are not experienced with the science fiction genre—and they are therefore condemned to repeating the sophomore errors that anybody who'd been reading SF for more than a year could point out to them. If there is one wish that has been voiced by the fans again and again, it is the wish that the producers would bring in some strong science fiction writers—especially those who understand the mechanics of film and television—and listen to what they have to say about the presentation of the material. The result would not only be a more satisfying piece of science fiction, but also a more successful piece of film.

It would be a good way to protect the investment. No science fiction film that was weak as science fiction has ever had a strong success at the box office, and no science fiction film that was (for the most part) scientifically valid has ever failed to earn out its negative cost; that reason alone ought to be enough justification for listening to the people who know the genre. The studios don't do medical shows without a technical advisor; they shouldn't do science fiction shows without a science fiction writer aboard, a *good* one.

And they should listen to him. (Or her, as the case may be.)

The success or failure of all of the above-mentioned shows will be directly related to how well the studios and the producers have used the resources available to them of a very demanding, but also very rich and exciting literary genre.

—G—

# A Matter Of Some Gravity

C.D. Renmore



WE ARE about to embark upon a journey: a journey through gravity.

Of all the forces in nature, gravity is perhaps the most mysterious. It has not yet proved possible to find a theory which links gravity to the other fundamental forces; no way of generating or controlling gravitational waves in the laboratory has yet been found; even the detection of such waves is still the subject of much disagreement and debate. Gravity is everywhere; it permeates everything. No shield against it is known.

For the first part of our journey I shall guide you through fairly familiar territory, emphasizing those situations in which gravity plays a dominant role rather than a minor one. The second part of the journey, however, will be quite different.

How shall we plan the journey? I am your guide, so here is my suggestion: let us begin with zero, and continue through to infinity. After that, we shall see.

## IN SEARCH OF ZERO



IF GRAVITY is everywhere, and there is no shield against it, can we possibly hope to find zero gravity anywhere? It seems hopeless—but wait, isn't "free fall" supposed to be something to do with zero gravity? We have all seen astronauts floating about in "zero-G" conditions. Is that the answer?

No, free fall is not the answer to that particular question. Gravity is not zero for the orbiting astronauts; it is

balanced by the outward force due to their orbital motion so that an object released within the ship will hang in the air, stationary relative to the hull, just as though gravity were zero. The object remains "fixed" not because there are no forces acting upon it, but because the forces are equal and opposite. The object in the ship is like the tag of ribbon attached to the rope between two tug-of-war teams: if all you can see is the tag and it isn't moving, then it could be because they have all gone for their coffee break. Or it could be because they are pulling for all they are worth and the two pulls happen to balance at that time. You can only resolve the issue by investigating further.

Perhaps this tug-of-war idea, in which forces balance in order to give zero, is worth pursuing. Is there somewhere we can find where gravitational pulls exactly cancel? At some point between the Earth and the Moon, for example—or at the centre of the Earth, where the pull in any one direction should be balanced by an equal pull in the opposite direction?

That depends on how close to zero you want to get. If you will settle for a net pull of a thousandth or a millionth of Earth surface gravity, then the answer may be yes. But if we are looking for something more fundamental, a sort of "centre of gravity" where all the pulls from all the masses in the universe balance perfectly, then we have a much tougher problem. The closer we get to this null region, the harder it would be to locate—like searching for the South Pole with a magnetic compass. And suppose we ever found this hub of the



universe, this elusive zero-point: would it be any different from anywhere else?

It might. Physicists have long speculated about the nature of something they call inertial mass. Inertial mass is the mass that still makes it painful for two astronauts to collide head-on in their spaceship, even though both are weightless at the time. Inertial mass is numerically equal to ordinary (gravitational) mass to within less than one part in a million million, according to measurements made in this part of the universe, but the so-called "Mach principle" is held by some to imply that the distribution of mass in the rest of the universe affects our measurement of the inertial mass of any object here and now. If this is so, then measurements at the zero-point might hold some surprises.

A Matter of Some Gravity



But this is speculation. We must return for a while to the Earth, the Moon, and the affairs of men. Specifically, to tides and the affairs of men.

#### TIDE AND THE AFFAIRS OF MEN

IT IS well that the sea tides on Earth are caused by the Moon, the Sun, and (to a much lesser extent) the other planets. The situation is complicated by the fact that there are forces due to rotation as well as gravitation acting upon the seas of the Earth. Our present purpose is best served by considering a simpler case: that of an object in free fall towards the centre of the Earth. This will enable us to identify an important property of gravity which I shall call the *pure tidal force*.

C.D. Renmore

We can isolate and clarify the nature of this tidal force by carrying out a simple thought-experiment. (You haven't done that before? You haven't lived!) Take a couple of rocks and a length of elastic up to a convenient height—say ten thousand kilometres—above the Earth's surface. Make the rocks of equal mass, to keep things simple. And don't put them into orbit; when they are released I want them to fall in a straight line towards the centre of the Earth. Forget the elastic for the moment. Now position the two rocks, one just below the other in a straight line pointing at the centre of the Earth. Release them at the same time; now watch them carefully as they fall. Do they stay the same distance apart?

At first they both appear to be accelerating towards the Earth at

exactly the same rate, but then you will notice that the lower one (that is, the one nearer to the Earth) is gradually drawing away, gradually increasing the vertical separation. Why?

They are not accelerating at the same rate because they are not experiencing the same force even though their masses are the same. The gravitational pull on the lower one is greater than that on the upper one simply because it is closer to the Earth. So far, so good. Now get them back and repeat the experiment with one difference: join them together with the elastic so that it is just unstretched when they are released. Again, watch them carefully as they fall, and look at that elastic!

The lower rock tries to draw away from the upper one just as it did before, when they were not connected by the elastic; indeed, it succeeds until the tension in the elastic is sufficient to prevent further separation. Does their distance apart then remain constant? No, it does not. The difference between the gravitational pulls on the two rocks is steadily increasing as they fall, and this stretches the elastic more and more. Perhaps it eventually breaks.

The elastic in our thought-experiment was experiencing the pure tidal force mentioned earlier. Both rocks were being pulled towards the Earth but at different rates, and that stretched the elastic. We have come to the remarkable but inescapable conclusion that gravity, which pulls every object towards every other, can also stretch an object—even tear it apart.

Please don't take this personally when I say that a human being or a spaceship is—as far as gravity is concerned—just like a lot of rocks joined together with elastic. The "rocks" are the basic building blocks of whatever or whoever we are considering; the "elastic" is there to represent the internal cohesive forces which normally keep it or them together.

These tidal stretching forces are not to be underestimated: they would even tear the Moon apart if it came sufficiently close to the Earth.

In pursuit of increasing gravity we must now take leave of our solar system, whose star is barely middle-aged after nearly five thousand million years, and turn our attention to the ultimate fate of more massive stars—the supernovae—and their ghostly remnants.

**D**O YOU remember that tug-of-war with the two teams motionless, apparently doing nothing, but in fact exerting themselves to the utmost? You could be forgiven for thinking that nothing at all was happening, especially if you were watching from the opposite side of the sports stadium and were, in any case, more interested in the ladies' relay race just in front of the terrace. But suppose that, without giving any warning, one of the teams ran out of energy and suddenly collapsed. The results would be clearly visible even from the back row, and you would obtain a glimpse of the forces which were involved prior to the catastrophe.

Something of the sort can happen at the end of the life of a sufficiently massive star. The tug-of-war within the star is between the gravitational forces (which tend to make it contract) and the thermal pressures (which tend to make it expand). When the thermonuclear fuel is eventually used up, the star can no longer sustain the thermal pressure necessary to resist the crushing force of its own gravity. Gravity wins the tug-of-war, and the star collapses.

The compression which takes place, and the densities that are reached, far exceed anything that we can reproduce in laboratories here on Earth. As the collapse proceeds, even the atomic nuclei themselves no longer retain their identity. Electrons are crushed together with protons to form neutrons, with the release of neutrinos. At first, the neutrinos can escape through the outer layers of the star, but then even they are blocked and a new phase of intense heating begins. By that time the star's diameter may be only a few tens of kilometres—yet its mass can be several times that of the Sun.

The heating causes a violent shock wave which makes the outer atmosphere of the star explode, blasting a shell of plasma out into space. The shock also reacts back on the core, compressing it further and making it implode into a new, hyperdense state. The expanding shell of hot gas gradually passes away, leaving behind that quivering, pulsing remnant of dead matter known as a neutron star.

The diameter of the neutron star may only be a few kilometres, which means that the density of the matter inside will be about a million million times that of lead. Such remnants of supernova

explosions are often spinning and emitting intense, highly directional beams of radio waves—hence their original name: pulsars. The Crab nebula is a supernova remnant and does indeed contain a neutron star, rotating at about thirty revolutions per second.

The surface gravity on such an object is about a hundred thousand million times Earth's surface gravity; if an astronaut were unlucky enough to find himself falling towards the surface of a neutron star, the tidal forces would shred him completely at a height of a few hundred kilometres and deliver him to it in the form of a filament of organic goo, many kilometres in length and perhaps a millimetre or so in thickness. My apologies, if you were thinking of having spaghetti for dinner this evening.

If the mass of the collapsing star is sufficiently great, then something quite different—even more extraordinary—occurs: a kind of event the like of which even ten years ago, most scientists would have firmly relegated to the realms of scientific speculation. I shall call it the Schwarzschild catastrophe.

### THE SCHWARZSCHILD CATASTROPHE

**T**O UNDERSTAND the nature of the Schwarzschild catastrophe, we need to remind ourselves of the idea of escape velocity. It is the minimum upward velocity needed by a projectile in order to escape completely from the object concerned. For example: close to the surface of the Earth, the velocity of escape is about eleven kilometres per second; for the Sun it is nearer six hundred kilometres per second. For the neutron star we have been considering, the surface escape velocity would be in the vicinity of two hundred thousand kilometres per second—*more than half the velocity of light*.

It is time for another thought-experiment. We are going to squeeze that neutron star so that its radius decreases but its mass remains constant. The more we squeeze, the higher becomes the escape velocity from its tortured surface, and the more sinister its appearance. The change in its appearance is important, for it warns us of the impending catastrophe. To understand this, suppose that we have placed a blue lamp on the surface; we can study the light reaching us as the escape velocity rises.

There are two very strange effects.

The first is that it may be hard to locate the beam from the lamp because the path of the light will be distorted by the intense gravitational field. The second strange effect is that the apparent colour of the lamp depends upon our height above the surface of the neutron star. This is because the light is climbing up to our eyes against the enormous pull of the star, with the result that its frequency is shifted downwards (that is, towards the red and beyond).

Let us investigate further; we, in our invulnerable thought-vehicle, are beyond the reach of the tidal claws and can approach as closely as we wish. As we squeeze the neutron star more and more, the velocity of escape from its surface increases towards—what? The lamp is no longer visible in even the red part of the visible spectrum; it appears more like a microwave beacon. One more squeeze should do it; the lamp is now only detectable at very low radio frequencies...yes! It has now disappeared completely. We have witnessed the Schwarzschild catastrophe. What have we done? What have we created—or destroyed?

By compressing the star further and further we have formed an object from which even light itself cannot escape. In its place there is a hole: a hole with a definite edge over which anything can fall but nothing can return; a hole that curves space and distorts time. A black hole, as it is called.

The Schwarzschild radius is the distance from the centre of the object at which the escape velocity is just equal to the velocity of light.

Normally the Earth and the Sun could never become black holes; they are not sufficiently massive, and the energy available from their gravitational collapse would not be sufficient to do the job. But if external forces are used, any object could be compressed to the point at which it turns into a black hole. It is interesting to do the calculations. To turn the Earth into a black hole, it would have to be compressed down to a diameter of about two centimetres; for the Sun, the corresponding figure is about six kilometres.

Black holes can be formed without any external forces if the mass of the collapsed star is sufficiently great—say between five and ten times the mass of the Sun—and several promising candidates have been located. At the time of writing, one of the most likely of these is designated Cygnus X-1. But, you may

A Matter of Some Gravity

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# Surely zero to infinity must include everything? Not at all. We still have the other half of infinity left—the other side of zero. Are you sure you can face it?

(indeed you *should*) ask: if no light or radio waves or material objects can escape from a black hole, how can we possibly hope to detect one?

An isolated and remote black hole would indeed be formidably difficult to detect, and so the search has concentrated upon binary star systems: specifically, those in which an optically visible star has its motion perturbed by an invisible companion object. Even though a black hole is invisible, it can still exert an influence upon neighbouring matter because of its immensely powerful gravitational field. By studying the orbit of the visible star, the mass of its dark companion may be estimated. If the mass is high enough then the companion cannot be a neutron star; it must be a black hole. Further tests are possible because the black hole would pull material off its visible companion star, and in falling into the black hole this gas would emit intense radiation, particularly in the X-ray region of the spectrum.

One very interesting consequence of the black hole concept is the fact that there appears to be *no upper limit* to the allowable mass of such an object. Why should this be of any particular significance? I am quite prepared to tell you, but please make sure that you are sitting comfortably first. We don't want any accidents.

We are now about to pass into the realm of speculation, on the second part of our journey through gravity. You have been warned.

The lack of any theoretical upper limit to the mass of a black hole has led directly to what must surely be one of the most shocking suggestions so far made regarding black holes: we are living in one now.

## BEYOND THE BLACK HOLE: SPECULATIONS

**H**OW COULD we possibly be living inside a black hole now? What about all that super-dense matter? Why haven't we been shredded? What about the

supernova explosion?

The key word, where black holes are concerned, is *mass*. Ordinary black holes (if you'll pardon the expression) are expected to have masses in the range from about three up to perhaps one hundred Suns; but there are probably supermassive black holes in the hearts of some galaxies—possibly including ours—which result from the large-scale collapse of whole star systems. In a galaxy the size of ours, for example, such a massive black hole might have a mass of a hundred million Suns and a diameter comparable with that of the Earth's orbit around the Sun. This does not break the rule for a black hole, which simply requires that the mass—however large or small—is contained within a distance equal to the Schwarzschild radius from the centre of that mass. But how does this help to explain how we might be inside a black hole now?

The suggestion that *our entire observable universe* might be a black hole was put forward several years ago in a mathematical contribution to the scientific journal *Nature*. It used estimates for the total mass and radius of the observable universe, and it concluded that this radius might define a Schwarzschild surface from which we can never escape, though matter could enter from outside (whatever "outside" means in this context). This rather shattering result is accepted as plausible by some astrophysicists. Does it really feel so terrible, living inside a black hole?

If a black hole could be as large as the universe, could it perhaps be as small as an atom? Stephen Hawking, of the University of Cambridge, has proposed that it could. Although mini-holes cannot be produced by natural processes in the universe as it is now, there may be some survivors from the period immediately following the Big Bang (the moment of creation of the universe) and these would be very different from the usual idea of a black hole. In particular, quantum effects are important and the holes should now be dying.

Such a mini-hole, with the mass of a small iceberg, would be far from black; in its last stages it would be a fireball powerful enough to boil the Atlantic ocean, yet small enough to fit inside the nucleus of an atom.

As a stepping-stone to the next speculation, we might consider this idea: the formation of a massive black hole should be accompanied by a burst of gravitational waves. This suggests a possible, though extremely dangerous, means of interstellar transport. Would you care to join the surf-riders in the sky?

## SURF-RIDERS IN THE SKY



HE "GRAVITY DRIVE" is of course a standard method of propulsion in speculative fiction. In the light of present developments in gravitational theory, it is interesting to look a little further into what it means and how it might be achieved. First we must understand the attractions—and the dangers—of the gravity drive.

The appeal of the gravity drive, together with its operation principle, can be expressed in two words: free fall. Gravity acts upon every constituent particle of an object, no matter what that object is made from; so, in free fall, we can have all the advantages of enormous acceleration without any of the disadvantages of using the action-reaction principle. The safe acceleration of a rocket, for example, is severely limited by the stress that a human body can withstand when the propulsive force is transmitted to it as an external push via an acceleration couch. In free fall, the occupants would feel nothing no matter how great the acceleration. Is that right? Remember the story about the neutron star and the spaghetti?

So there is one important reservation, after all, even about free fall: gravity can be high—it can pull as hard as it likes—but it *must* pull equally on all parts. If it doesn't, then the crew will experience anything between the two extremes of discomfort and death. I am,

A Matter of Some Gravity

of course, referring to the tidal stretching discussed earlier. To emphasize the need for uniformity in the gravity field, suppose that we are designing for an acceleration of a million gravities (there's no point in hanging about, after all). Unless the field can be made uniform to within better than one part in a million over a distance of, say, two metres anywhere within the ship, it could be a very uncomfortable ride.

Having dwelt upon one of the more daunting aspects of the gravity drive, we can now go on to consider how one might lay the foundations of such a project. Since we don't yet know how to generate intense, localized gravitational fields we had better start by going to a place where one already exists. Even then, how can we take advantage of such fields to travel?

We must, whether we like it or not, compare ourselves with the first people who wondered about building a flying machine. They looked at the things that could fly, and tried to make wings so that they could do the same. Well, they had to start somewhere, and so must we. The most literal and dangerous kind of gravity drive would then take the form of letting the space vehicle fall freely towards some massive object (such as a neutron star—or perhaps a mere black dwarf would do for starters), while seeing to it that the massive object accelerates away at the same rate so that the ship never actually hits it. The result is that the whole system accelerates, but (tidal forces permitting) the occupants don't feel anything. Of course this would require enormous supplies of energy, but the human race has a fairly good track record for that sort of thing. (Imagine trying to convince a scientist living in Newton's time that a few kilograms of uranium—or of anything else for that matter—could propel a ninety-thousand-ton ocean ship at forty knots for thirteen years without refuelling. Point taken?)

This crude gravity drive can be likened to a sort of interstellar water-skiing, in which the "massive object" is the powerboat, gravity is the tow-line, and the space vehicle is the water-skier. In spite of all its naivety, this picture helps us to grasp what it is that we are aiming to achieve: a travelling, localized region of high gravity. In fact, a gravitational shock wave.

The Earthbound surf-rider takes advantage of something very much like a gravitational wave, for he uses a C.D. Remmire

"localized region" in which the slope is—if he's careful—just right for him to slide down the water with the same forward speed as the wave itself. It does not matter that the whole sea hasn't got a slope on it; it has where he is, and that is all that counts. The analogy with the gravity drive is that the surf-rider is somehow able to create the wave he needs and make it travel with him wherever he wants to go.

Gravity is far too weak a force within the solar system for any of these effects to show up, and indeed there is still some dispute as to whether gravitational waves originating outside the solar system have even been detected yet. Joseph Weber, of the University of Maryland, obtained measurements which he interpreted in this way in 1969.

Suppose that, due to some cataclysm

(perhaps the collapse of an entire galaxy to form a supermassive black hole) a really intense gravitational-wave shock front passes through our galaxy, the Milky Way. How might we be aware of the passing of such a wave, assuming that it did not affect us directly?

Imagine that it is a calm, clear night and you are looking down at the stars. Yes, I did mean down; you are looking at their reflections in the surface of a lake. It is just like a mirror—until a fish jumps somewhere near the edge of the water, out of your direct line of sight. Then the star-images begin to dance, tracing out little loops of light or wobbling from side to side until the ripples have passed by. That is how the sky might look to our *direct* vision if a gravitational shock wave passed through the edge of the galaxy, for such a wave

## Questionable Service Awards

**H**AVE YOU ever thought that you might like to hand out your own awards once in a while? Come on now, of course you have! Well, here is your chance. We are announcing the *Galileo* Award for Questionable Service, and we want reader nominations.

**Eligibility.** The *Galileo* Award for Questionable Service is a citation in recognition of an action which inspires each one of us to say to himself: "I'm glad I didn't do that!" It recognizes blunders, boners, buffoons, bloopers, botches, bungles, boors, and mistakes. The province of the Award is all of science and all of science fiction, although timeliness is important.

Do you know of something so dumb that somebody deserves an award for it? Send nominations on a 3 x 5 index card to: The Questionable Service Award, c/o *Galileo*, 339 Newbury Street, Boston, MA 02116. If we use your nomination, you'll receive a free issue of *Galileo* (and maybe even a lawsuit).

Just to get you started, our editors have worked up a set of citations for this issue's winners:

**□5 Fifth Place.** Producer Gary Kurtz, of the film *Star Wars*, who was on hand at the 1977 World Science Fiction Convention in Miami to receive a special Hugo Award and used the term "sci-fi" in his acceptance speech.

**□4 Fourth Place.** The audience at the 1977 Hugo Awards Ceremony who booed Gary Kurtz when he used the term "sci-fi."

**3 Third Place.** The film *Starship Invasions*, in which aliens reputedly obtain human sperm samples by using a voluptuous female.

**□2 Second Place.** Steve Trinward, who wrote a review of *The Hugo Winners, Volume III* for *Galileo*, and said about Joe Haldeman's novel, *The Forever War*: "It won the 1975 Nebula for Best Novel, yet received no consideration for a Hugo."

**□1 First Place.** Review Editor Floyd Kemske of *Galileo*, who published Trinward's review.

distorts space and changes the paths of the light rays. If the wave were weak, then only very delicate observations of the positions of the stars would furnish clues to its passing. But if it were sufficiently intense then the starlight could be bent away from our part of space altogether, presenting us with the terrifying spectacle of a spreading zone of darkness, like a velvet curtain being drawn across the sky. The curtain would eventually move away, but it might take years or centuries, depending upon the extent of the wave in space.

The early surf-riders would have to take their chance with the currents and tides of deep space, and there would be no return tickets for sale. Since gravitational waves are likely to occupy enormous volumes of space, it may be practical to launch whole colonies, even planets, or journeys between the stars. But these are the pioneers, the ancient mariners; what of the future? What would we like to have?

To make a useful interstellar transport system we would need to be able to generate highly directional gravitational-wave beams, much as we produce laser beams now. These generators would be set up to produce permanent superhighways between the major centres of galactic civilization. In traditional SF, of course, all this is done by jumps through hyperspace, but that is another story, which space (ordinary space, that is) prevents me from telling on this occasion.

Well, we have perhaps not quite been from zero to infinity, but we have at least had a brief glimpse of some interesting regions in between. Surely zero to infinity must include everything? Not at all. We still have the other half of infinity left—the other side of zero. Are you sure you can face it?

#### BELOW ZERO: THE OTHER HALF OF INFINITY

**T**HE OTHER half of infinity—the negative half—takes us still further into speculation; perhaps our thought-vehicle will have to take us out of our universe altogether. We must try to imagine what things might be like if the numerical value of gravitational force were to remain the same but the sign were to change from positive to negative *everywhere*. Could such a universe exist? Supposing that it might, what sort of place would it be? It would be very unfamiliar in certain respects,

for the law of universal gravitation would be re-written as: "every object repels every other object..."

Since this is unfamiliar territory, we shall tread carefully at first. Suppose that we are in a space vehicle which is so far from any star or other large mass that we can think of it as being isolated in space. Now: gravity (that is, the gravitational constant G) changes suddenly from positive to negative without altering its numerical value. What happens? Does the Ship disintegrate?

One's first thought is that everything would fly apart, but I think not; gravity is, we are apt to forget, an exceedingly weak force where small masses are concerned. And for our present purpose, a space vehicle is a small mass. The forces which keep atoms, molecules, crystals, and even steel bars or human beings together are far in excess of the gravitational forces associated with such tiny masses. No one on board would even notice.

The situation with regard to planetary and stellar masses would be quite different, of course. If the gravitational constant were to change sign in our universe now, the stars and planets would all explode; black holes would become white holes, and so on. But the lesser objects—some of the asteroids, for example—might well survive the holocaust. Certainly, if the gods are tired of watching our antics and want to begin all over again with the minimum of effort, they could hardly do better than to reach out and flip the G-switch from positive to negative. Gravity would do the rest.

But this is too depressing, speculating on whether life might or might not re-emerge following our deliberate extinction. Let us instead simply consider the general question of whether life would be more favoured by conditions in a negative-gravity universe than in our positive-gravity one.

The key difference is that matter would, given time, tend to distribute itself evenly (on the large scale, at least) rather than concentrate into planets and stars. A great deal would depend, as it always must, on how such a universe "began"—for example, our universe is generally believed to have started with a Big Bang and carried on expanding ever since. Although there would be no planets or stars as we know them in a negative-gravity universe, on a much smaller scale there is no reason for any major differences. Familiar atoms such as hydrogen, nitrogen, carbon, and

oxygen would be there; after all, we have not changed the basic building blocks in our new universe, only one particular relationship between their properties. There would still be the familiar laws of electromagnetism, which as far as we know do not depend upon the sign of the gravitational constant. But the main question is: would we expect life to develop in such a universe?

What are the conditions for life? We know of some. We know, for example, that an electrical discharge through a mixture of hydrogen, methane, and ammonia will produce the basic amino-acids which in their turn lay the foundations for more complex structures, culminating eventually in ourselves and our fellow-creatures. The starting conditions, at least, should all be present in the negative-gravity universe. Electrical storms could be produced on a titanic scale not possible in our universe: colliding gas clouds, expanding under the action of gravity, would soon give rise to free electrical charges.

In the warm, primeval soup of the gas clouds, life would indeed develop unhampered by gravity as we know it. On Earth now, the size of viable land-creatures is limited by gravity; in the sea, it is limited by the availability of food. But if there were enough food to fill a galaxy, then what? There would be no need to fight for survival, perhaps no need even to evolve. Who needs evolution when you can just grow, unimpeded, for a billion years?

Is that too much—have I gone too far? Excellent; that's what I set out to do.

#### IN CONCLUSION



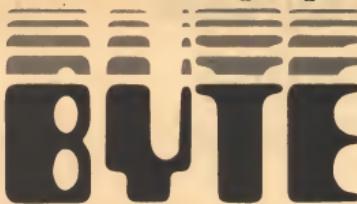
RAVITY IS still mysterious, for all the theories and speculations. On Earth, it is such a weak force that we are hard-pressed to even devise, let alone carry out, experiments which relate it to the other fundamental forces we find in nature. Even on Jupiter or at the centre of the Sun, things are hardly better. We can conduct our high-energy physics experiments here on Earth and, later, in Skylab or on the Moon if we wish, but what about our high-gravity laboratory?

It is out there now. Starlab has been in operation since the universe was born; the experiments are already in progress. It is for us to interpret them. The challenge is there.

—G—

A Matter of Some Gravity

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**BYTE**

# Encyclopedia Galactica

Barry R. Bernard

## STARS IN MY EYES

**S**UNRISE, SUNSET. It stimulated a waltz here on Earth, but what if Earth orbited, for example, Polaris? Sunrise, sunrise, sunset, sunrise, sunset, sunset, . . . or something like that. Maybe that makes for an even better waltz, I'm not sure. The fact is that many stars are in their own private systems, most small, but some quite large. You might be surprised to learn that some of our most famous stars are in such systems. Polaris, as I have mentioned, is one of three stars; so is Alpha Centauri. Sirius, which is very prominent in our winter sky, is binary; Castor is a sextet. An easy binary to see with the naked eye is Mizar and Alcor; they're at the bend of the Big Dipper.

Robert S. Harrington of the U.S. Naval Observatory in Washington explores the possibilities of planets orbiting binaries in the September *Astronomical Journal*. He deduces that it is conceivable that even in the complex gravitational pulls of these systems planets can exist. And, they can exist with a fairly stable orbit. Harrington, by numerical integration, claims that planets can orbit the system as a whole or orbit only one of the stars at a sufficiently close range to negate the effect of the other body. In any case, there's a lot of sunshine.

In an almost whimsical experiment that is rare in these high-brow journals, Harrington integrates the possibilities that would come out of our own Solar System as a binary. In the first of two situations, he replaces the Sun with two

stars which together equal the mass of the Sun. With the exception of Mercury zooming off into the hinterlands, nothing much happens; the system is stable and unchanged. In the second situation, Jupiter is replaced with a star the size of the Sun. (By the way, Jupiter just missed out on being a star itself.) This time, Harrington looked at the inner planets only, and he found that while Mars went a little crazy, Mercury, Venus, and Earth stayed in pretty much the same orbits.

Habitability becomes a question now. In either of the two cases, it gets a bit warmer for us on Earth. Seasons are more dramatic when the Sun is replaced by a binary. There's a short summer, average fall and spring, and a long winter (warmer though, remember). When Jupiter is replaced, temperatures are at their highest. Seasonal variance is greater, but it's always on the hot side. Interesting, it looks like there is a long period (2-3 years) of little change every ten years. Looking at binary systems in general, Harrington believes that habitation is probably unlikely for those planets orbiting whole systems, but in the cases where planets orbit a single star of a binary, chances are indeed favorable.

## ON, COMET!

**W**HAT DO we do with an Object-Kowal? Call it a planet, no it's too small. Asteroid then, but it's in the wrong place. But it could be a comet, that's a theory. So that's what we do with an Object-Kowal.

Well, the knowledge of Kowal's latest

is, I expect, fairly common. Still, even among the other recent discoveries in the Solar System, it is exciting. In the November 17, 1977 *New Scientist*, Kowal suggests as a possibility an interesting alternative to the "outer asteroid belt" concept. This tiny chunk of the universe could be an inert comet.

It seems that the outer Solar System may be filled with comet stuff. In fact, there is a chance that Uranus and Neptune may be made of it. Just like the inner planets are comprised of planetesimals, Uranus and Neptune could be the work of cometesimals. Furthermore, it is now suggested that the tilt of Uranus, which puts its axis in the plane of the Solar system, was caused by the bombardment of such comet pieces. One eventual clue to the authenticity of this theory will come as the object is tracked. The more elliptical the orbit of the object is (as a comet's orbit is erratic), the more likely that O-K is a comet remnant.

As a byproduct of this research, the watchers of Phoebe, the outer moon of Saturn, will wonder if the moon which is similar in nature to O-K, is also a piece of comet. Occupying the same area of the Solar System, being about the same size, and having the eccentric orbit of a captured object, Phoebe seems to have been, before her marriage to Saturn, an Object-uncategorized herself.

## THERE'S STILL A CHANCE

**T**HOUGH BROWN and cracked photographs, blotched letters, or tales a bit too tall to be believed were not involved, it

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has come to be that the roots of our family tree, just when they were thought to be dug up, have propagated a new relative. Oddly, we've met this relative, but we hadn't noticed that it is unique. So unique, as a matter of fact, that it is a new life form. Excuse us please, methanogens.

Stoically regarded by microbiologists as oddball bacteria, methanogens were only recently found not to be bacteria at all by scientists at the University of Illinois. Though they appear to be similar to bacteria in some respects, their RNA sequences (which are a sort of genetic fingerprint) are completely different from anything else on Earth. That's the assertion of Carl Woese at U of I. Archeabacteria, as he has named them, have a particular importance because they live in the oxygen-free type of environment that existed at the time of primal Earth. Being our elders, the oldest traceable life forms on the planet, interest is great to seek them out on other planets. Life-fever is high again, and as I have mentioned in previous editions of the E.G., there are planets which are virtually fossils of early Earth. Jupiter, having come closer with Pioneer and Voyager, is one.

#### INTERGALACTIC RELATIONSHIPS

**O**DDBALL CIRCUMSTANCES at the opposite end of the universal spectrum have caused Dr. Barry Madore of the Institute of Astronomy at Cambridge, England to wonder about the origin of galaxies. Though most galaxies are independent spirals or clusters,

Barry R. Bernard

some are ringed, in obvious interaction with other galaxies, or virtually parenting small galaxies.

Madore suggests in the November 3, 1977 *New Scientist*, that the evolution of galaxies might be determined by observing aberrant systems. Pursuing this, he has spent three years in Australia scanning the southern sky. The results are still two years or so away from us, but for the moment, 7,000 delights of space age strays have been sorted into 25 categories. (Ironically, one of these categories is "miscellaneous," for those no one can figure out what to do with.) About seven percent of the universe's galaxies fall into what Madore believes is an evolving condition. Many of them are interacting—exchanging or sharing stars. As many as five galaxies were seen in such direct relationships. Others have single arms ending in small clusters. Some are completely surrounded by a thin ring of stars.

Speculating on what is happening in some of these associations, Madore says that the spiral arms could be star formation generated as galaxies come close to each other. Or perhaps spirals are rather destroyed by the tidal forces resulting from the approach of one galaxy to another. More interesting, the effects produced by galactic interaction occur in systems that are apparently isolated. This could be an indication of massive internal disruption in the nucleus, or it could be an indication of a massive companion not seen...a black hole, that is.



HOW MUCH chance is involved in me coming up with this column? (Please, don't ask the publisher.) Well, William R. Bennett of Yale claims in the November/December 1977 *American Scientist* that creativity could likely be the end product of random brain work...with a lifetime of living thrown in. In an artificial intelligence experiment, Bennett allowed a computer to rattle off the letters of the alphabet to see if something intelligent would come of it. (If a roomful of monkeys...) Happily, nothing did, but when he programmed the computer with some easy rules of English language word structure, 90% of the printout was wording...much of it vulgar. When higher level language rules were fed into the computer, vulgarity decreased, which is just about an analogy to educational levels of people.

Bennett then put together a few of his own ideas to speculate whether this computer process was an analogy to the creative process. He states that genius, the extreme example of creativity, is often characterized by intense periods of acclamation. With the necessary base of correlation data in hand, the artist randomly associates data bits. The case could be made for all areas of original thinking. New comes from the old, as it always has, built by association. So, to all of you out there, heed your daydreaming, take care to monitor all that free thinking.

#### EARTH vs. BARSOOM



HEREAS A colony has been established in orbit around the Earth, and whereas said colony was inhabited by a multinational group of scientists and technicians, and whereas said colony is proceeding into its third generation of habitation, WITNESSETH, said colony is independent from the political governments of the Earth.

The legalese may not be exact, but the intent is one that we will be forced to recognize in the future that is focusing into view. George S. Robinson of the Smithsonian Institution describes in the M.I.T. *Technology Review* of October/November 1977 the progress and ramifications of space law. The fact is, and has been for a while now, that legal jurisdiction is with us and even ahead of us in space. The obvious, and most

[Continued on page 111.]

# On The Road

Gregor Hartmann

**O**CTOBER IS LATE IN THE YEAR for hitching in Northern California. Fog shrouded the grove when I opened the mummy bag to let my face out. My body had congealed in the night; I treated it to the last of the trail mix I'd been hoarding. Then soft across pine needles to the highway. Coast Highway 1, the nation's sinuous boulevard of weirdness. Looked like rain. It was raining, later, when I met the man who hunted aliens.

When the big-green Dodge van whispered over the hill, I debated. The first law of hitching: the probability of getting a ride is inversely proportional to the value of the vehicle. Should I waste a thumb on this richie? He slowed, checking me over. My arm reflexed out and hooked him.

"Where you heading?" I asked, scanning. Short greasy hair, no beard, no moustache. Plaid shirt, but those slender arms said he wasn't a logger. About 35? The runt wore a watch, like all good little clock-sucking petit bourgeois worms. "North," he said.

The vibes said bore, but the rain sounded louder. So I shook off my backpack and hopped aboard the pigmobile, putting on my small talk record. It's a hit, on the highway, where you





have to reassure drivers that just because you wear a ponytail you aren't going to smoke their Triple-A trip kit. Besides, if you blow it up, it's easier to score a meal.

I opened the show with my travelling name, which usually comforts straights. Good citizens don't lie. But this dude only nodded and asked where I was going. *Wish I knew.* "Just travelling. I've bounced around the Pacific Northwest for a month." That perked him up.

"I bet you meet weird people on the road, Wendell. What was the weirdest?"

That rated a smile. He'd touched one of the reasons I hitch. Secrets. People bored with driving alone pick me up, tell me things they'd never tell their analyst, and dump me. Maybe they think I bury their confessions in a ditch. Maybe they just want to talk a hassle out. Anyway, I hear good stories. Stories I can lay on other rides. By trading road stories I can rap for hours. I'll pump you dry and never let you catch a glimpse of me.

Since he was straight, I told him about the businessman who confessed to using his waitress girlfriend (he was married) to torch his Cleveland foundry. For insurance, of course. A good tale in itself. Plus it makes others more willing to discuss their own misdeeds, which seem slight in comparison. But this guy soaked it up without comment. So I used the one about the gambler who fixes greyhound races. How a gay computer programmer came out on top in a Time-Life office war. Zip.

Finally he responded. "Ever meet anyone really far out? Maybe even... an alien?"

I misunderstood. "In Modesto once I got a ride with a Cuban refugee."

"I mean an alien alien. From another planet."

H.L. Mencken once said if you turned the country on end, California is where everything loose would fall. Hitching in looney-tune land is one reason I hear such good stories. Yet this man didn't smell crazy. He drove like a machine, his speech was normal, no tics or winks. A saucer cultist? "No aliens," I admitted. "But then I've never hitched in L.A."

Silence met my little witicism. So I climbed back to check my pack, the better to inventory his van. Very porkish, the opposite of the rattley hippie VWs I usually ride in. A sofa and foldout bed, cabinets, sink, propane stove, even a refrigerator. No clutter, no decals, no nothing to show a human being lived here. I upped his straight rating two notches. I washed my hands and in the guise of looking for a towel, opened a cabinet. Magazines cascaded. *Proceedings of the American Physical Society.* No reaction from the driver, so I applied more stimulus.

"You a scientist?"

"Amateur. My real profession is hunting."

"What do you hunt?"

The eyes in the mirror locked on mine. The coast sogged past, wipers whirred, he reflected. Then he told me his story.

Hunter was chasing aliens. The kind that come in spaceships. He made his living investigating UFO reports for a private organization of believers called SKYSCAN. Very matter of fact, he explained he had clues that an alien had taken up residence in the Klamath Mountains of Northern California-Southern Oregon. Since I was at loose ends, would I help his search? He'd feed me and let me sleep in the van in exchange for my services as interviewer.

Wow.

Lightning would have been appropriate. But only rain draped the set, so sad. I stared inland at the smooth yellow

hills, so perfect that they always remind me of a model railroad layout. They reminded me too of Jeanie's breasts, of my exile from the commune, of why I aimlessly hitch and talk to strangers.

On the left was the cliff, plummeting to a boulder beach, an ocean. Suppose this nut tried to drive on air? I stared at the hills, sensing the alienhunter's offer as a powerful karmic choice-point. Was he an angel of light, to lift me from despair? Or an angel of darkness, seeking company in his obsession? His rap was practiced; that meant he'd asked others to join him and been refused.

The flakey mission didn't bother me. It would make a good tale. But I still ached from the battles in the commune, ironically named Nirvana Meadows. People = pain, one of the reasons I hitch, since on the road relationships are short and superficial. Travelling with this man would be entertaining. But even the narrowest boss-employee connection would, as days passed, be widened by the flow of shared experiences.

The rain decided me. Winter was near. I couldn't go back to my parents' dreary tract house, where conformity was the price of a place at the trough. Nor could I hole up in Nirvana Meadows, which cast me out like a germ. The alienhunter offered food and shelter. Only a fool would refuse to use him. If he got too weird, I could always grab my pack and split.

Life is a series of rides. No law says you have to take the dull ones.

**B** WANA AND BOY, we parsed the Pacific Northwest. October crept through the forests of rain and emerged older, colder. A white-gray blanket fogged the land. Seldom did we see the stars from which our alleged quarry hailed. I had to take on faith their continued existence, just as I accepted Smith's assertion that there was indeed an alien to be caught.

Our M.O. never varied. Smith, who was frail and easily tired, piloted the van. I pounded on doors. "Hi. I'm doing a survey. I wonder if, on the night of July 8, you noticed any unusual electrical disturbances in your home? Did your TV picture distort, or your stereo make strange sounds, or your appliances or lights go off and on?"

Sometimes eyes nested in longhair would be amused. "We don't use electricity." (Proud.) More often, I learned that the Sony is fine, sorry, though the phone line clicks buzzes burrs with more ghost voices than the Saturday night horror movie. Then I'd sidestep the country dweller's craving for a conversational fix and saunter back to the van, enjoying the soft sound of footsteps falling into forest abyss. So lovely, flowing with lonely, those half-wild mountain roads, with only the ubiquitous fence to remind me that people contaminated the land. Smith would be waiting in the van, metal box dotted with rain, only a lacquer's thinness from instant rust. "Nothing," I'd report. He'd glance at the twin compasses on the dash. Then on to the next village, tally ho.

A simple life, our sniff-sniff after electromagnetic spoor. And for the first time in my life an adult was rewarding me for asking questions. Even if the payoff was just a bunk and meals whenever I opened my beak. Smith never went into restaurants; as befitting a wandering kook, he ate only fresh fruit. The first few times he sent me in to dine alone I endured the hitchhiker's fear of Driver-Making-Off-With-Pack. After a few days, though I appreciated the chance to chat, even with the bovine automatons who wag their tails in small town cafés.

Smith, you see, made not the tiniest of small talk. His introversion was worse than Jeanie's. He wouldn't answer questions about himself, except to say he came from "back East." Family? None. If he'd held other jobs than hunting Martians, he wouldn't talk about them. Nor would he say how he'd hooked up with SKYSCAN.

Normally I wouldn't care. If a ride isn't armed with interesting stories, I'd rather he clam-up than shoot off his mouth about billboards or weather. But Smith's lip-lock was a challenge. He'd spread his wallet with little effort on my part; I ate well because he needed me able to prance up driveways. But Wandering Wendell needed mindfood too.

I used every stratagem I'd tried to penetrate heads at Nirvana Meadows. I launched irrational attacks on radio newscasts, hoping that if he put me down he'd reveal his own politics. Nothing. I talked about sex, suggested we troll the parks for femflesh. Not a nibble. I told him his driving (always perfect) was atrocious and demanded a turn at the helm. He ignored me. The only response I ever stimulated came the first Sunday, when I blithely announced I didn't intend to interview toasters seven days a week, so I was taking the day off. "If you don't work I'll replace you," he said, in a glacial voice. "I don't keep assistants who don't work out." That busted that strike and that conversation.

Eventually I found the lever. Mr. Ice was upset if I lingered to talk to people I interviewed. He was hyper about publicity; chatting with the natives not only wasted time but also increased the danger of newspapers picking up the story of our bizarre quest. How ironic. To crack this secretive nut I had to socialize. I too preferred to flash past, my presence fleeting as a strobe, a backroads ghost of a hitchhiker.

But if I was to smash his shell...

**C**OMMUNARDS SPROUTED like psilocybin mushrooms in that Northern California rainforest. My ponytail and peace-love-brotherhood rap were ticket into dozens of neo-hippie hostels. Herbs to drink, herbs to smoke. Smith simmered, but he swallowed my slowdown.

Only once did I reveal the purpose of my questions about electrical aberrations. (Californians have vivid memories of "The Two," and still debate whether they were merely wacko or conscious con artists.) It was at a commune. I was bullshitting when a girl who looked like my dead Jeanie materialized with a plate of raisin and oatmeal cookies. She pretended to listen but mentally was off in her own space. The conversation dribbled out and, rather than trade the pseudo-Jeanie for Smith, I decided to astound the rubes with the tale of our alienhunt.

"SKYSCAN?" one of them mused. "Must be a new one. I've heard of NICAP—that's National Investigating Committee on Aerial Phenomena—and MUFON. That's Mutual UFO Network. But not SKYSCAN. Probably three L.A. chiropractors with a letterhead."

"It's very hush-hush," I fumbled, desperate to impress them (her). He smirked and took a cookie. "What happens when you find your alien? What do you do?"

I flinched. Find the alien? There was no alien, just a shorted cell in Smith's backbrain. This was the U.S. of A., not an *Outer Limits* episode. But mountainman bored in.

"What makes you think it wants to talk to you? If it's here in secret, it'll probably zap you. How do you and your partner plan to deal with that contingency?"

Suddenly the chick zoomed back into our world to rescue Gregor Hartmann

me. "The alien is a great teacher," she announced, beatific smile fissuring her face. "I've felt him in the groove. His name is Lao Tazu and he was sent here by the Galactic Council to teach us to love. He has 14 eyes and 7 rays. Wait—I'll contact him and ask why he hides." Her two eyes closed and she hugged herself, rocking and emitting a hum.

Well. I would have stayed for the second feature but one of the big males gave me the git-go. *Must be screwing her*, I decided, as I toddled down the close-set step-stones. *Lucky bastard, to score a good-looking loonie. You can do anything with them.*

"Teach you to laugh at alien hunters."

The next few communes, I didn't go in.

In Yreka I slid through a chili parlor and across the street to a library. While Smith thought I was pigging down, I was gobbling up the *L.A. Times* for early July.

For once the reactionary rag had something of use to me. July 10's "In the State" column noted:

"Coast Guardsmen at Crescent City searched for 13 hours Tuesday night and yesterday without finding a sign of a reported plane crash five miles off the coast. Three people said they saw a bright light explode over the ocean shortly after 11 p.m. No planes were reported missing. Cmdr. L.H. Richards, who called off the search at noon yesterday, said the object was probably a meteor."

**T**REE-GODS TREMBLED in the crackling dark, looking down on two turtles huddled in the warm breath of the campfire. Pine light flailed against pine night. Blackness flickered in and out, like waves nibbling boulders at low tide.

*Stop it, I told myself, fixing eyes firmly on fire. I'm no caveman, quivering at every rustle in the night.*

*But if aliens are out there...*

Another log into the fire. Smith crunched an apple, gazed at the sky. Oblivious of me, my fears. For once the stars were visible. Sparks roused by my offering to Agni soared to rank themselves in new constellations.

Why was he so sure creatures from the sky walked our world? He was no armchair theorist, citing Von Daniken or the biblical pillar of fire to prove they'd been here ages ago. He was no Carl Sagan, willing to populate half the galaxy with intelligent races as long as they couldn't cross interstellar space to get at him. Smith had deduced that they're here. Now. And set out to track them down.

Aliens. The concept gave me the creep-o's, created a whole new set of problems. It was like being a smalltime suburban grass dealer and finding the Mexican Mafia wants a piece of your action. If there are aliens, there's a mysterious new force in the game. Shiverly. I didn't want to think about what might share this forest at my back. Oddball Smith was human in comparison.

Did he understand what he was getting into? What did he know about the July 8 meteor which said to him: alien. In the Klamath Mountains. He didn't argue with me. He just stated a fact. Did he really know something? Did he expect to just walk up, shake the hand/paw/flipper, ask about the weather on Jupiter? I felt like an apprentice to a magician trying to invoke a demon. What do you do if the spell works?

*Crunch.*

Not that he was a Merlin. Too skinny, too lethargic. And lately blotches had formed on his cheeks, subtle, like the kelp beds in the ocean off Santa Cruz. An effect of his diet? Smith was supershy about his carcass, so I couldn't tell how far the

"I thought sleeping together implied a more than casual relationship among the 'new people.' Was this girl a toy to you?"

"I loved her," I lied.

mottling had spread. I hadn't even seen him take off his shirt. I hoped he wouldn't get too sick; he was still useful to me.

*Crunch.* My associate's quirks were chiggers under my foreskin. He might as well crunch on my spine. But the loon was all I had, to share a nest this lonely night.

"Smith. What will you do when you find your alien?"

He swallowed. "Talk to him." *Crunch.*

"About what?" I persisted.

"Oh, where he's from. What he's doing here. Why here, out of all the places in the galaxy."

Toos casual, for a man obsessed. My bullshit detector rang. It occurred to me that perhaps Smith was not the privately employed goof he presented himself as. I lie to people; why couldn't he? Maybe SKYSCAN was a front for a more ominous acronym.

A test was called for. "That's dull, Smith. I can think of a better climax to the search. If the alien came here, by definition he has transportation. A starship. Let's make him tell us where it's hidden, steal it, and explore outer space."

If I'd dropped a rattlesnake in his granola I couldn't have produced a stronger reaction. For the first time in three weeks he looked at me. Really looked. A cancerous cell about to be blasted by a laser would recognize that stare. I was so freaked that I gave him the next move.

"Wendell, why are you on the road?"

I hadn't told him about the commune. Why should I? He accepted my superficial hitchhiker personality, but if I let him see what a revolutionary I truly am, his establishment programming would take over and label me a shit. Besides, he had no right to my secrets.

He waited. Well, maybe if I made him feel sorry for me, I could score more than meals, when he got too sick to travel. Violins, please.

I found Nirvana Meadows like I found Smith: hitching. I'd just been fired from my stockboy job at Monkey Ward's (for expropriating pig property). My parents were mad at me (because I explained to Dad he was a fascist). Summer warmed the woods, so I hit the road (before my pretrial hearing). On I-5, between Portland and Corvallis, I was scooped up by a four-hippie, two-dog '57 Chevy pickup and offered a place to crash for the night. I stayed four months.

Behind the nonconformist facade, the drop-outs at Nirvana Meadows were as submissive as most Amerikaners. The boss—they called him facilitator—was a dude name of Marcus, who'd been around long enough to get good at settling quarrels, juggling chores, and playing daddy. (He bought the land and founded the commune.) I made it my goal to knock him off his high horse. I would have, except for Jeanie.

She was OK. Quiet, which I like. (Passive as a blob of play-dough. IQ of 80.) Every male in the commune would have liked to make her but I was the only one with gonads enough to do it.

I didn't bore Smith with our heartthrobs. What was significant for him, what touched off my wandering, was that

my success with Jeanie enabled Marcus to use sexual frustration against me. Like most communes, Nirvana Meadows had more males than females. When she did herself in with reds, they took it out on me. At the next general meeting everyone dumped on my. (Also for dealing in town.) They claimed I endangered the commune—

"Why did the girl kill herself?" Smith interrupted.

He was supposed to be sympathetic, not interrogative. "I don't know. Maybe I gave her too many orgasms," I snapped, breaking eye contact.

But he didn't let go. "She was your mate, yet you don't know why she killed herself?"

"We weren't married. Just sharing a bunk."

"Just?" His tongue was a scalpel. "I thought sleeping together implied a more than casual relationship among the 'new people.' Was this girl a toy to you?"

"I loved her," I lied.

"That seems unlikely, Wendell," he said, twirling an apple. "Several consistent personality factors run through your narrative. One. Your contempt for people. Two. Your refusal to admit that others have needs and rights too. Three. Your preference for passive people, since you can use them."

"I have observed these already in our relationship. For instance—"

I was better off when he was brooding about spacemen. At last I remembered how legs worked and jumped up, ransacking my mind for a devastating insult. No anal-retentive bourgeois, no mewling straight could lecture the king of the hitchhikers like that. "Fuck you," I snarled, and stalked off.

A bush scratched me; I stomped it into chlorophyll paste. Had Smith followed me I would have fixed him too. But he stayed by the fire. I orbited it for an hour, smashing through the trees, afraid to go too far into the night but unwilling to tolerate more insults. That's what happens when you're open with people: they hurt you.

**I** WAS STILL SIMMERING the next day when we hit Fort Jones, a hamlet of 600 on the east side of Klamath National Forest. On the first street I found four families who remembered their TV's or radios burning out in early July.

I was mad enough to withhold the info. For sheer spite. But I worried that the sickie might soon abandon the search and invest in something more beneficial to his health than hot meals for me.

Also, we'd been three weeks on the trail. I was bored. Might as well move to the next square.

So I told him. My reward? Convulsions.

Smith had a seizure. Luckily he was in the back of the van, parked on a quiet residential *cul-de-sac* where I'd just interviewed. His eyes rolled up into his head; his tongue erupted from mouth, brown and awful; his face turned orange; limbs twitched and he collapsed like a teenybopper on PCP.

I had the presence of mind to roll him face up. His skin was already cold. He seemed to breathe, through his nose, so I didn't fool with his tongue. I just stared at the man, shivering incongruously in the tidy van. I'm no nurse. If he died, could his employers sue me? What if the people on the street got suspicious about the strange van and called the cops? If they ran a check on me, the computer in Sacramento would shout: Fugitive. Smith sprawled, quivering. Helpless. I decided to split.

My backpack was full, my mummy bag rolled, ready for emergencies. I pulled them toward the door, so rattled I stepped on his hand. His eyes opened. I froze. But he stared vacantly into space, not at me, crouched guiltily overhead. His tongue retracted. And he began to sing.

"Hai gldno, hai reboziq, gliss raglisa wa seeh," gurgled the pumpkin-face. Or something eerie and unintelligible like that. Something so unearthly—

Awareness hit with a rush like nitrous oxide.

Smith was an alien.

It was my turn to quiver. I stared at him, lolling on the floor like a man surfacing from a drunk, chanting his outlandish song. His quirks and oddities suddenly made bizarre sense. No wonder he wouldn't talk about himself. His presence on my planet was obviously a secret.

What would he do to someone who unzipped his disguise?

Quickly as it came, my panic ebbed. Alien or human, I didn't fear this little man. I could hop, run down the street to the police station, and be a big hero. A valuable piece of information was mine. Where could I cash it in?

The government swine were an obvious source of money. But trust them? They'd classify me and lock me in a Pentagon closet for 50 years, while they boiled Smith's brains out. Sell him to GE or IBM? They'd love an alien, but they'd cheat a poor innocent hippie too. If he carried alien artifacts, I'd consider taking them and splitting. But I'd already searched the van and found nothing worth ripping off.

Then I realized something else. Smith's search wasn't fantasy. He knew something. He knew there was another alien—or more—in the region. I stared at the hills crowding Fort Jones. Why would one alien have to hunt for others?

Was he separated from his fellows in a rough landing? That would explain his illness, his lack of supplies. Wow. Could I possibly get a reward from the other alien(s) for reuniting them?

A long shot. Too many unknowns. But obviously my best bet was to play dumb and stay with Smith. At worst I'd have two aliens, maybe a base, to cash in. I replaced my pack and sat down, cradling his head in my lap. When he came to, I'd pretend he'd thrown an epileptic fit, babbled a bit, you see it every day, ho hum.

I scrutinized his disguise. The skin was perfect. *But I know your secret.*

Lead me to that starship.

Even telephones in homes tempted me. Amerika's electro-magnetic nervous system was everywhere. If I but touched it, the U.S. government would form a fist and grab "Smith."

Sloshing through the night, Smith driving me to yet another place, I sat lotus-limbed on the shotgun seat and gloried in power. If only I had handled it this well at the commune. Then I would have been able to lay someone besides a dummy. Boy, have I learned.

Bumps knocked me out of my reverie. An old logging road. We slithered only a mile up it before we slithered into a hole the Dodge couldn't dodge. November rain thrummed on the van, rain perilously close to snow. In the dim cone of the headlights I could see only a few yards. "Anderson Peak," Smith announced. "The ring of burned-out appliances centers on it."

The dim dash light made it all unreal. Was he really handing me a flashlight and the twin compasses? The van was a bubble of warmth in a cold lonely night. "Now?" I protested.

"Now. Come on."

"You're crazy. The alien can wait till tomorrow. Maybe the rain will stop."

"He won't expect visitors in this weather," Smith snapped, showing emotion for the second time since I'd met him. He climbed out. I noticed he'd left the keys; then I felt his eyes on me. Reluctantly, I sealed my parka and slid into the wet.

The trail was a dashed line on the Geological Survey map, but that must have been decades ago. Now it was blocked by fallen trees, brush, slippery rocks. A nightmare. I slipped and fell and stumbled, trying to miss wet branches while keeping one eye on the trail and one on the compasses. One was a gyro, the other simple magnetic. I was to tell the alien at my back if they began to point in different directions. He kept up easily; it occurred to me that by sitting in the van he could have been saving his strength for . . .

*What am I doing here?*

"The lightning will jam the compasses," I suggested lamely. "Why don't we wait till morning?"

"At short distances the polarizer will exert an unmistakable attraction," he stated, in a voice that iced my spine. Drawn like bird to snake, I turned to stare, letting my flashlight flick across—

I dropped the light. He handed it back to me with one of the slender tentacles that now erupted from his clothing in the vicinity of his waist. Another outgrowth brandished a short dark rod. "Keep moving," he said.

I moved. Very numb, very glad I hadn't tried to peek in his shower. I thought of the other assistants he'd had until I was too frightened to think any more. I was wearing down fast, thighs aflame, legs congealing. How could I be so hot with the cold rain soaking my clothes? Pneumonia! I had to turn back. I took the chance of telling him.

"It's not you," the creature said. "We've only climbed one mile. Ril must have set up an emotion wall to divert hikers. Keep going."

In a few hundred yards we waded from the weariness zone. My brain awakened, hurled itself at the bars of the dilemma. The Smith-thing had me sewn up. He could be cop, criminal, anthropologist, or interstellar dealer, but what counted was the weapon poised to fry my kidneys.

Another emotion wall. Then the compass shivered to a new angle. Smith told me to follow the magnetic one, straight to the other alien. Tougher going, off the trail: blackberry

[Continued on page 33]



EXPECTED HIM TO APOLOGIZE for insulting me, since I'd nursed him through his fit.

Hah. The rest of that day and all of the next he barreled around the area, nagging me to make my interviews faster and faster. Nary a word of thanks. In his monomania he assumed I could work 16 hours a day and baby him as well.

The only thing that kept me going was the knowledge that at any corner I could pull the door lever, jump out, walk to a gas station phone, and close his show with a call to the feds.

Gregor Hartmann

# Django

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## Harlan Ellison

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**H**E STOOD IN THE PORTOBELLO ROAD and screamed up at the closed windows. "Anatole! Anatole, hey! come to the window! Open up, hey, Anatole! The war's started!"

London, on that Sunday morning, was filled with the sound of air raid sirens. Unearthly wailing. Foreshadowed sounds. He stood there and screamed louder. Finally, a window on the third floor squeaked up in its tracks and Anatole's white hair and white face were thrust out into the morning chill.

He stared down at Michel, trying to focus him with sleep-bleary eyes. He worked his mouth to get the mugginess thinned. "Are you insane? It's very early! Everyone is asleep!"

Then he actually heard the sirens. He had been hearing them for some time, but had not codified the cacophony. Now he heard it. "What is that?"

Michel shouted. "War. It's the war; come down; I'm leaving!"

"Leaving? Leaving where, you fool?"

"I'm going. Back to France. The war!"

"Don't be a fool, Michel. We have a concert tonight."

"Piss on the concert. I'm leaving! Come down now. I didn't know war had been declared, but I'm off now!"

"What do you expect me to do about it? Do you think I can go off and stop it like Chamberlain? I'm a violinist, not a political person!"

"If you don't come down straightaway, I'm off without you!"

"We have contracts! The tour! We will be sued, you fool! Stay in England, play your guitar! You're no young boy, you're no soldier...they have enough young boys to play soldier...you're a musician...come back...Michel! Michel! Come back, you idiot!"

But Michel ran down the road and fought in the underground with the *maquis*, and he lost the ring finger and the little finger on his fretting hand, his left hand, and he never saw Anatole, the combo's violinist, ever again. He became a jazz legend.

His name was Michel Herve and he died honorably.

**S**ILVER DROPLETS FELL on the black river. Spattering and then shattering as moonlight carried the molten silver downstream. He sat by the edge of the river, contemplating onyx. He held his guitar tightly, as he had held the manila rappelling slung during that last suspension traversal before the others fell to their death. He thought about them, Bernot and Claudeville and little Gaston, lying dead at the bottom of the crevasse, and he clutched the guitar more tightly. He wanted to play something for them, but he had lost his sentimentality at least a year before, in the face of withering fire from a water-cooled machine gun; and playing a new composition for broken corpses was beyond him now.

He sensed movement at the edge of the river, almost directly across from him where silt had built up the shore and a crossing was possible. He sat very still, hoping the shadows cast by the trees still cloaked him from the eye of the moon. It was an animal. Something sleek and quick. It dipped its head and thrust its muzzle into the black water. And drank.

Something oily and thick extruded itself from the water and wrapped itself around the animal's neck. There was a moment of slithering, tightening; then the cracking of a twig. The tentacle withdrew below the onyx surface of unripped water, dragging the dead animal by its neck. A courteous splash of water, and the bank of the river was silent again.

He edged back.

Now he was afraid to play in the darkness. Calling up that killer from the river was a terrifying possibility. And so he sat quietly, holding the guitar tightly; and finally, he slept.

Beside him, the cannister of radioactive isotopes cooked, holding death, promising nirvana.

**T**HERE WERE WOLVES IN THE HOLLOW, and they were eating. Whatever was being eaten was screaming, still alive and very much in pain. He detoured around the rim of the bowl, dragging the cannister behind him through the golden sand at the end of a twenty-five foot length of climbing rope. He had been travelling exclusively by night, burrowing into the sand during the day, hiding from the roaming skirmish packs of Nazi *Sturmerkommendos*, the cannister leaking its death in a pit fifty yards away.



On the rim, someone had erected a cairn of stones, pried out of the desert from God only knew where. He had not seen a rock or stone for days. The cairn seemed to be an altar of some sort. He decided to pause there, and have something to eat. He fancied strawberries, but all he had left was the heel of the rye bread and some carrots. He settled slowly to the ground, leaned back against the cairn of dark stones, and took the bread from his jacket pocket.

He ate with eyes closed, pretending to rest. Perhaps there would be a sun tomorrow. For many days now he had been hoping for a sun, any kind of sun. It might tell him where he was. He had the carrots lined up like pens in his inside jacket pocket, with the bushy leaves bunched against his armpit. He withdrew one and took a bite. If there was a sun tomorrow, he would see what color it was, and that might at least tell him if he was still in the world. But what if the sun came up green or blue?

He lay back against the altar with eyes closed and thought about little Gaston. His smile, the dimple that appeared in his chin when he smiled. Lying dead at the bottom of the crevasse now, unsmiling. They shouldn't have used manila. Would hemp have been any better? Probably not. But climbing had been the only way to escape.

He had trouble putting it all in sequence. Every time he tried, the music would run through his head and he would make up a new tune. He wanted to play a few of them, but there was always the chance that the Nazis were on his trail, following the sound of the music in his head.

It was still bothersome to him that they had managed to pull themselves through when Claudeville and Bernot and little Gaston had fallen and died. It wasn't right, it wasn't fair. He wanted desperately to play them a going-away song.

He shifted around and unslung the guitar. He laid it on his lap and touched the strings. He wasn't sure he could even play with two fingers missing, but the healing had somehow been speeded up by the passage through to this place, and he had been thinking for many days about how he could lay his hand on the neck to do what he wanted to do. It would be a different sound, but it might be a fine sound. He wanted to try, and to try this first time was a going-away song for them.

Knowing he was taking a terrible chance, he raised the guitar and fitted himself to it. Then he began to play, very softly. It wasn't one of the new tunes from his head, it was one little Gaston had enjoyed. *Rosetta*.

It worked. The fingers that were left accommodated themselves and the song jumped up and out.

He sat there on the golden sand, a carpet of black beneath him, without moon, and the bright snowfall of too many stars above, with his back to the dark altar, and he played. And the shapes that had waited in the darkness came to listen.

One was a creature without eyes that sank its filaments into the sand and absorbed the sound by vibration. Another rolled into a ball and pulsed with soft pastel colors through its scales. Another looked like a flower but had feet and pod-like hands should have been. There was a tall, thin one that hummed softly; and a snakelike creature with a woman's face; and a paper-thin flying wing that swooped in to pick up the sound of *Rosetta* and then sailed away into darkness, only to return again and again as though refilling itself.

After a long while, Michel Herve realized he was not alone. Because his eyes had been closed, and because he had been living with the music, he had been in their company and had not known. He stopped playing.

The flower began to wilt, the ball of pastel scales went

gray, the flying wing sailed away and did not return, the creatures grew silent and hummed no more. He understood, and began strumming softly. They perked up. He smiled.

"Do any of you speak?" he asked.

There was no answer, but they listened.

"We had to climb to escape the *Boche*," he said, talking to them, not to himself, and letting the music of one of the new tunes flow along as background. "I'll have to tell Bernot's daughter how he died, if I ever get back. I could hear him asking for absolution as he fell. He was much older than Gaston, and I didn't know him as much, but I think that long after I've forgotten certain things about Gaston, I'll be able to smell Bernot's pipe tobacco."

The flying wing sailed back overhead, dipped, caught a downdraft, swooped and filled itself with sound, and rose on its forked tail. It went straight up and was lost among the spilt milk of the stars.

"The rope was frayed. I think it must have rubbed against some rocks. We didn't see. We could have gotten away, I'm sure of that. Hemp. Perhaps we would have done better had we used hemp instead of manila. Some day they'll make better ropes."

A gentle purple light began to seep out of the dark stones of the altar. Michel felt warmth at his back. He looked over his shoulder and the glow was growing, enveloping him. It was like a tepid bath. It cut off the chill of the night, but not the darkness. The darkness remained and the silent creatures remained, but the *maquis* were dead and could not return.

"They fell. And I fell with them. But something very peculiar happened. There was a place in the air, and I fell through it, and the others went down, but I didn't. You may think it odd that I don't question what happened. My mother was a Gypsy. I don't question such things. Or the music. Magic shouldn't be questioned. If this is magic, I don't know. But, listen, all of you, listen for a moment longer, then I'll play you many songs, *Avalon* and *Nuages* and even a lovely song I know, *Star Dust*, that you will enjoy. What I need to know is the way back. I don't question, you understand, but I want to get back, to tell some people what happened to little Gaston and Claudeville; and I really must tell Bernot's daughter that he died for her and for France. Can you understand what I'm asking? Do any of you speak?"

But there was only silence.

So he played the songs for them, because they would have spoken if they could. He knew that. And they enjoyed the music. He was a wonderful musician.

And the *Sturmerkommandos* did not come.

The purple glow settled around Michel Herve and the silent creatures watched him, and suddenly he stopped playing. They watched him for a time, but he did not seem inclined to play more, and they went away silently, one by one.

**H**E DRAGGED THE CANNISTER WEARILY. If he had known why he was compelled to burden himself so, it might have been easier. But he had no idea. The cannister had been there in the golden sand when he had drifted down through the air from the space where the peculiar passage had occurred. He had understood, without questioning, that this was a thing he had to keep with him. He even knew it was leaking death, but he had attached the rope and had assumed the burden.

And when he came to the second altar, a much larger but exactly identical altar to the tiny one of dark stones where he had rested, he knew he should bury the cannister there.

DJANGO

So he did, and he lay down a good distance from the leaking metal container, and he waited for someone to come and tell him what he should do. He perceived that he had no control over what was happening to him, that where he was and what it meant would probably never be revealed to him, but that he must be patient.

All through the night that stretched on without end, he waited; sometimes sleeping, sometimes letting the music have its life. And in the night the dark stones of the great altar let loose the purple glow, and he was bathed in the radiance. When he awoke, there was day all around him, and the purple glow was faintly discernible, but there was still no sun, not of any color.

But Claudeville and Bernot and little Gaston were there. They sat around him, cross-legged on the golden sand, and they waited for him to awaken. For just an instant he was happy to see them, but then he understood that they were dead, and he sat up with pain in his face.

"Now I must make the choice, is that it?" he said.

They watched him. They did not plead nor did they try by their deaths to shame him. They merely sat quietly, as the animals had sat. They presented him with the other side of the question by their presence.

"If the music, then you cannot go home, eh, Gaston, little friend? Claudeville? Bernot, I'll never smell your pipe tobacco again? Is that it? If I want to make the music?"

The glow from the altar surrounded them, because the time for making the decision was at hand.

"And what of this metal thing with the death in it? Does that come with me and my music, or does it stay here where no one will ever suffer from it?"

Spectacular runs of notes cascaded through his mind.

Hé began to breathe very heavily. He felt himself about to cry. He didn't want to cry; he knew what that would make him decide.

"I have no choice," he said. "It is the music. It was always the music. Forgive me. You understand, perhaps you won't understand, but you died for something you loved, and I would do the same. But to live for it is even better."

And he made the choice, and was returned, and the dead remained dead, and the cannister came soon after, but not soon enough for the *Sturmkommandos* to use it.

And he made great music for a while, for just the little while that he bought in that peculiar place of silent animals and dark stone altars. And it was great music, because he became a jazz legend, even with two dead fingers, and buying those few years was the only brave thing he could do.

His name was Michel Herve and when he died, he died honorably.

—G—

*This story is dedicated to the memory of Django Reinhardt, the greatest jazz guitarist who ever lived; and to the music that he left us.*

—Harlan Ellison

[Continued from page 29]

thorns, vines, fallen branches to trip over. Leafmold over my boottops. The alien's silent passage indicated he could see better than I, but he made me walk in front.

I found out why.

It was a little glen amid Douglas fir. I stepped onto grass with relief—into a giant spiderweb.

. . . "Aaaaaaaaaaaaaargghh!" I hacked the gooey mass with flashlight and jumped back, only to be dragged forward again. It pulled me into the center of the clearing. Where was the spider? Mother of bogs, let me out of here. Scream and fight and pull: you're trapped.

Sudden and miserable and crying, I hung for an eternity. Waiting for the giant spider fangs to pierce my ribcage. Then in an instant, the invisible webbing was gone and I fell. When I dared look up, a slender little man stood over me.

Smith shot him from his hiding place. The rod. It sizzled.

**R**AIN ON MY FACE. Smith searched the other alien, pocketing little devices. He made me carry his opponent. Slowly we finished the peak. Another invisible web snared me. This time Smith had the key and neutralized it after a few seconds. *That's why I had to go first, I realized. He used me.*

The ship was like a water tank. Squat. Dark. And small. Smith opened it with another device, then motioned me in. When he saw there were no booby traps, he entered too.

*I'm in a starship,* I sighed. All function, like the cab of a Mack truck. No blinkers or fluorescent geegaws. Just dials, buttons, and a silver globe the size of a softball. And viewscreens. Inert now. But soon I'd look *down* on Earth. Soon I'd see the Milky Way oozing across them.

Smith dumped the other in one of the two seats and began weaving him in. When he glanced up, I saw that his eyes were slit by vertical pupils, like a cat's. Had he worn contact lenses? So many new things to learn! He tightened a strap and raked me with two words. "Get out."

"Aren't you taking me? I wouldn't mind living in a zoo. I could tell you about our culture—"

"Our anthros already know more about your world than you'll ever learn. We don't keep sentients in zoos. Out."

The rod-weapon twitched. I stepped back into the cold rain. So much for the big score. Lingering in the glow from the hatch, I realized I didn't even have the small score: his story. I didn't know if Smith was a soldier capturing an enemy, a criminal ambushing a cop, a scientist settling a private vendetta. The disguise said he or his people had been here before. What was happening? I stuck out my thumb in a desperate appeal. "Hey, going my way? Need someone to talk to to stay awake?"

"Can that crap, Wendell. I've enough responsibilities. I don't need the problems of a leech like you." As the hatch riséd, choking off the light from the ship, my final vision was of the alien peeling off the Smith-face.

I hugged a tree till the starship made green light and lifted. Then I was alone on the mountain. Free to go anywhere. No place to go.

I lifted my face to the clouds where the ultimate ride had disappeared, and screamed: "My name is Robin."

—G—

# Nova In A Bottle

John Kennedy

**T**HERE WAS NO SOUND but for the wind. Nothing moved except the dust and sand. The sun was a hazy red ball a few degrees above the horizon.

With his sensors on auto-alert, the Soldier slept—soundly, dreamlessly.

Twenty minutes before his scheduled wakeup call, he heard the echoing crunch of explosives. Awake now, he listened as the echoes faded, replaced by the persistent tick of wind-blown sand against his exoskeleton. It was not the sound of a sky-strike: somewhere out there a Friendly was engaging the Enemy. The Soldier felt a mild irritation; he had come to think of this wasteland in a proprietary way. He hadn't seen a Friendly in over a year.

Slowly he rolled from beneath the low outcrop that had sheltered him during the night and stood up. His three-meter exoskeleton was, at the moment, the same mottled color as the rocks that surrounded him. In the dim light of morning, he was virtually invisible. With a speed and agility that belied his size and obvious mass, he scrambled up the rocky slope to a higher vantage point.

He stopped with just his bubble helmet above the level of the plateau. Waves of red dust danced across the barren rock. He had no need to turn his head; the helmet fed a full 360-degree image into his brain. Across the plateau, about a kilometer off, the Soldier saw a column of thick, black smoke. Clearly, the action had taken place in the narrow canyon on the other side of the plateau.

The cratered rock offered little in the way of cover so he decided on a quick sprint. After a final scan for air patrols, the Soldier hoisted himself over the lip of the plateau and, with a burst of speed that turned his massive mechanical legs into a blur, ran for the other side. He covered the kilometer in just over 30 seconds.

Billows of black smoke rolled over the edge of the plateau, surrounding the soldier and obscuring the canyon from visual observation. Automatically, his scanners shifted into other areas of the spectrum. He saw a dozen hot spots, but they were blurred and indistinct. There was one very bright area of hard radiation about 200 meters to his left. Twice he saw the lance of laser fire. Since he could learn nothing useful from his present position, he decided, he moved down into the canyon. The boulder-strewn slope was not steep and, with the

aid of his sonar system, the Soldier picked an easy route that took him beyond the veil of smoke.

He could see a large number of EXOs and mules scattered, motionless on the canyon floor. Among the EXOs, he saw only one warrior. Most of the smoke came from a medium destroyer with both its turrets blown off. It didn't look like a hit and run job. Someone had taken the time to set up an efficient trap.

A flicker of motion within the smoke caught his eye. The Soldier magnified that part of his visual field, wondering if some of the Enemy had survived the attack. What he saw was a modified form of an ancient V-K engineer mech. It had the requisite cylindrical body, slightly flattened on the bottom, and six triple-jointed legs. The additions included a dorsal carrying rack almost twice normal size, an extra pair of arms on what was usually the rear, and a pair of laser cannons, one on each end. Its ability to move in any direction with complete co-ordination was also unusual.

It had been a long time since the Soldier had last felt surprise, but he felt it now. Where, he wondered, were the rest of the troops? Surely one lone mech, and an engineer at that, couldn't have caused the devastation that littered the canyon floor. The Soldier had an intimate knowledge of what it took to survive this deep in Enemy territory and he knew a mech didn't have it. It would need at least a class two Controller. But then, how could a Controller...? Too many questions without enough data. Wait.

Still as the rocks about him, the Soldier watched the old Mech loot the enemy dead. Then, for no reason discernible to the Soldier, it picked up the EXO warrior with its hind arms and moved rapidly away from the battle ground.

Moving now, low among the boulders, the Soldier followed. He'd moved less than ten meters when a laser beam sliced through a rock, mere centimeters from his helmet, and then touched his armored shoulder. The exoskeleton's rock-color camouflage automatically changed to a perfectly reflective mirror. As he leaped to the side, the Soldier caught one quick glimpse of the Mech. Somehow, it had managed to get above him. The Soldier headed up, toward the plateau, using what cover he could find.

He stumbled into a jumble of rocks that offered shelter on three sides. He squatted with his back against the rocks and

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"Yes. I have the standard neural linkups: base of spine and back of the skull. But I can unplug. This...creature couldn't. I can function outside my armor."

boosted his audio sensitivity to max, filtering out wind sounds. He heard metal against rock. Which way? He couldn't be sure with all the echoes.

"EXO?" a voice roared.

The Soldier damped the audio; the sounds were too erratic to do any good. He pulled the heavy-duty disrupter from its niche in his right thigh.

"I think we should talk, don't you?" The voice was quieter now, but it sounded close. It didn't sound like a mech's voice; it had too much expression.

"All right," the Soldier said. "Where are you?"

"Right here." With unbelievable speed, the Mech streaked around the boulder to the Soldier's left. Before the soldier could even raise his disrupter, the Mech had clamped a claw-like manipulator around the weapon and pressed a disrupter of its own against the soldier's chest. "No need for that." The Mech gently pulled the disrupter out of the Soldier's grip and stepped back.

Slowly, the soldier stood up. He was about a meter taller than the Mech. He was amazed; he'd never seen a mech move with such tremendous speed. Silently, he stared down into the Mech's shiny little visual receptors and waited.

"Sorry I fired at you," the Mech said. "Thought you were the Enemy. It's unusual to find a friend in this area. I trust you are unharmed?"

"I'm all right."

"Good." The Mech paused. When it spoke again, it sounded almost reluctant. "I've discovered an ancient habitat near here which is unknown to the Enemy. I would be gratified if you would care to visit it."

"Do I have a choice?"

"Of course." The Mech put away its disrupter and held the Soldier's out to him.

The Soldier took the weapon, silently contemplating the strange old Mech. He replaced the disrupter in its storage niche. "I'll come."

"Fine." The Mech turned and started up the hill toward the plateau. "Follow me," it called.

He saw that the Mech still carried the enemy armor in its rear arms.

The Mech's six legs were well suited to the rough terrain and bore it to the plateau with slightly more speed than the Soldier could manage.

When the Soldier reached the top, he found the Mech standing next to a shallow crater, apparently waiting.

"There is one thing I have to do before we proceed," the Mech said. It dropped the Enemy armor with a clang. The wind had died and a small cloud of dust hung in the air.

"Notice the remaining limb," the Mech said. One of the Enemy's arms and both legs were missing. The Soldier squatted beside the Enemy. The arm was different. The Soldier's hands reached to, and articulated within, the bulging slave unit at the armor's "wrist." Beyond were the mechanical manipulators that mimicked and amplified his

hand movements.

The Mech touched the Enemy limb with one of its manipulators. "Too small for an arm to fit inside." The Mech pulled a small circular saw from a compartment behind one of its legs. "There were two other EXOs like this one. They were very fast."

With the saw, the Mech made a quick, deep cut into the breast plate of the Enemy armor. It cut from groin to throat, then from shoulder to shoulder. As it cut at the waist, from left to right, clear fluid began to leak out of the thin gap and the blade spun a misty, glittering spray into the air. When the cuts were completed, the Mech pulled the armor open.

With a scissors-like tool, it cut through layers of insulation, cloth, and plastic, exposing the Enemy warrior's torso. The only thing that covered it was a clear, fluid-filled membrane. The Mech split the membrane with the scissors, but the opening closed almost as soon as it was made, losing very little moisture.

"Interesting," the Mech said. "This is—" Suddenly it stopped and turned its front end toward the east.

"What is it?"

"Listen." The Mech lowered its body until its belly was against the dirt. The small laser projector between its eye stalks moved slowly back and forth.

Then the Soldier heard it: a low, whining purr. He snapped his laser from its holder on his back and dropped to his belly. He flipped the power cord to make sure it was free, then waited.

Moments later, a small black object came over the edge of the plateau. The Soldier telescoped his view and tracked. He saw black wings against the gritty orange sky. The thing had a wing-span of less than two meters, and it wobbled as it flew. The Soldier recognized the object and relaxed slightly.

"One of ours," he said.

"Yes," the Mech agreed, but its laser was still locked on to the flyer.

It was a drone, a small nuclear bomb that flew a meter above the ground and had a range of over 5000 kilometers. The drone swept by less than 100 meters from them, swooping and climbing as it followed the terrain.

The Soldier could see a small jagged hole in the side of the flyer. "Damaged," he said. He rose to a kneeling position as the drone dropped over the far edge of the plateau. "That's why we could hear it coming, I suppose."

"Most likely," the Mech said, standing again. "However, it doesn't have far to go."

"What do you mean?"

The Mech had returned to the Enemy soldier, but it paused momentarily. "We are less than 150 kilometers from the Enemy Dome."

The Soldier was both elated and stunned. He had been wandering around the area for six months without knowing how close he was to his goal. All he had noticed was a greater number of craters (and the bombs that made them) and fewer

ground patrols. He said as much to the Mech.

"This is Target Prime—" As if to punctuate the Mech's statement, there was a ground-shaking explosion a few kilometers to the south: a sky-strike, much larger than could be caused by a drone.

"Besides," the Mech continued, "why waste patrols around here? They know a large force could never penetrate this deep into their territory. And how much can we hurt them?"

The Mech returned to its study of the Enemy warrior. The featureless bubble helmet had a small laser hole in the center. Carefully, again using the saw, the Mech cut a large window in the front of the helmet.

The Soldier, still thinking about what the Mech had said, stood up. He pointed to the rising column of smoke. "What about that? I've done as much myself—many times. You say it doesn't hurt them?"

"Correct," the Mech replied, as it lifted the front of the Enemy's helmet off. "Why do you think I can take the time to examine this soldier? I know we won't be bothered. I destroyed a scavenger patrol that was out looking for usable metals and equipment. It makes no difference to them. In a few days another patrol will come out and salvage what they can from the patrol I shot up—and that's it."

The Soldier had a vague sense of unease. For a moment he considered destroying the Mech. His laser was still in his hand, and the Mech was busy trying to cut the membrane... No, he decided, the thing's too fast. And, despite its disconcerting ideas, the Mech's behavior aroused the Soldier's curiosity. No need to terminate it now. He stowed his laser and squatted opposite the Mech with the Enemy between them.

The Mech finally managed to split the membrane fast and wide enough to keep it from repairing itself and the fluid splashed onto the ground and beaded up in dusty balls.

The Soldier bent close to look at the Enemy's face. There were only shallow depressions where the eyes should have been. The nose was so flat as to be almost nonexistent, and the mouth was a lipless, toothless slit. The laser hole was just below the right cheekbone.

"Grown without arms or legs," the Mech said.

Legs? the Soldier thought, puzzled.

With a few deft strokes, the Mech opened the corpse and began to examine the viscera. The lenses on its eye stalks were only centimeters from their object of interest. Each organ was carefully removed, examined, and discarded in the dirt. Within minutes, working so fast that the Soldier couldn't follow most of its movements, the Mech was finished. "The neural system is so closely tied into the armor's control mechanisms that they cannot be separated. This one was never meant to come out of his armor."

The Soldier stood up. He was both fascinated and repelled by the lengths to which the Enemy would go. The wind had picked up again and the Enemy's glistening viscera dulled as they became coated with dust.

"Somewhat different setup than yours, I assume."

"Yes," the Soldier said. "I have the standard neural linkups: base of spine and back of the skull. But I can unplug. This...creature couldn't. I can function outside my armor." He nudged the Enemy with his boot. "This is a mech with guts!"

Silently, the Mech cleaned and stowed its tools. It took a small incendiary device from its dorsal rack and dropped it into the Enemy's armor. The device flared briefly and the

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Soldier and the Mech cast shadows across the plateau that even the sun couldn't brighten.

The Mech turned toward the east. "Let's go."

The Soldier followed, ignoring the burning carcass that his all-inclusive vision wouldn't let him look away from.



HE ENTRANCE TO THE MECH'S underground city was in the wall of an old but still radioactive crater. What appeared as a crack in the glassy wall gave access to a narrow tunnel with a steep downward slant leading to a vertical shaft. Two parallel rows of metal rungs set into one wall of the shaft, about three meters apart, were just right for the Mech. The Soldier lowered himself almost as quickly with a pair of thin cables that unwind from his belt. The shaft was almost 600 meters deep and he had to re-attach the cables three times before he reached bottom.

The bottom of the shaft was filled with a jumble of loose rocks and dirt. The Soldier had the impression that it'd been quite a bit deeper when it was new.

A wide split in the shaft-wall opened into another downward-sloping rock fracture. It was wide and high, and the Soldier had no trouble matching the Mech's rapid progress. The fracture led to an enormous cavern. The Soldier's echo sounder fed him a picture of huge pointed formations reaching up from the cavern's floor to meet other, even larger, spikes that hung from the ceiling. A smooth, flat reflection off to one side was obviously a lake.

The Soldier followed the Mech to the lake, but stopped as the Mech splashed into the water.

"It's less than two meters deep here," the Mech said. After a moment the Soldier followed.

An unusual shape that had puzzled the Soldier turned out to be a horizontal tube over six meters in diameter and shrouded in a maze of support stanchions.

"This is part of an old transport system," the Mech said. "There's a large network of caves in this area and they used them whenever they could."

"How extensive is this transport system?"

"It covered the entire planet."

"It still functions?" the Soldier asked, surprised.

"Oh no, not for about 600 years. Most of it is in ruins. I had to re-bore the tunnels with a mole. There is a gap in the tube wall—" the Mech pointed to the right—"about 500 meters from here."

The inside diameter of the tube was over four meters. However, little time passed before they reached a collapsed section, where the Mech's mole had cut a new tunnel. The Mech-built tunnels were round and smooth as ice and only half the size of the original tunnels, and the Soldier had to squat-walk much of the distance.

The first barrier they met was a gas-tight door in a narrow cul-de-sac off the main tunnel. Manually, the Mech unsealed the door and pushed it inward. It moved soundlessly on massive hinges. The Mech stepped through and, ducking beneath the lintel, the Soldier followed.

Beyond the door, the halls seemed newer. The Soldier realized it was because of the lack of debris that littered all the other ancient tunnels.

"Did you repair these tunnels?" the Soldier asked.

"No, I didn't."

The Soldier waited, but the Mech said nothing more.

The hall gradually began to slope downward and the Soldier had to move along in an awkward sideways stoop to

He felt an uncontrollable need to know, and he kept turning his head, looking around. The silence, the cold, the total vulnerability pressed him from all sides.

avoid losing his balance. They passed through two more gas-tight doors and finally halted in a large room with high ceilings and yellowish lighting—the first light the Soldier had seen since leaving the surface.

The Mech cycled the last door and stood back. "Welcome to my home," it said, waving its manipulator toward the door.

The Soldier walked into a high, narrow cave. He saw light and walked toward it and then halted just inside the cave mouth. What he saw he couldn't explain. Outside the cave was a blue sky: a deep, clear blue with a few wisps of pink clouds, high up. Curving into the distance below was a vast, color-filled crater. Behind, the Mech stood waiting, silent.

"What is that?"

"The forest."

"Forest?" The Soldier walked out of the cave. He stood at the edge of a rock shelf and looked down. The ground dropped away in a gentle slope toward a large, placid lake about a kilometer distant. Farther down the hill, he could see a wall of narrow shafts, topped with a confusion of shifting shapes and colors.

"It would be better if your visual input was unaugmented," the Mech said, "as if you were without your armor."

The Soldier complied, narrowing the spectrum he could perceive. Things took on sharper edges and the colors muted to various shades of green, brown, red, and gold.

The Mech brushed past him and started down a winding path. "Come on, my house is by the lake."

As the soldier followed, he sent a few electronic pulses toward the sky and, as he had expected, got an echo. The sky was an immense dome with simulated clouds and sun. What a tremendous amount of energy it must consume! he thought.

The Mech gave him a lecture as they walked, naming the tall shafts "trees"—at least 20 different kinds—and pointing out other flora of almost infinite variety. The Soldier didn't even try to remember them all.

They crossed a small stone bridge that arched a stream. The water was transparent and the Soldier was sure he saw a dark shape move among the rocks, but the Mech didn't stop so he didn't either.

Once, the Mech did stop and it looked at the ground beside the path. It extended its visual receptors and studied something closely. The Soldier looked but all he saw was a rock with a red-gold stain of no interest. "Lichen," the Mech said.

The path branched many times and at one of the branchings they met a tiny mech with wide wheels and a load of digging tools. The little mech paused to let them pass. The Soldier watched it roll up the path until a bend took it from sight.

The Mech's house was a glassed-in space beneath a slanting slab of rock, large enough for the Soldier to stand upright. The floor was of some blue material that gave slightly under the Soldier's weight. The only thing in the room was a small three-legged table with an oval dish on it.

The dish held a mound of earth and five small trees—birch? The Soldier wasn't sure. At first he thought they were artificial, but when he took a closer look he discovered that they were real, with perfect leaves less than a centimeter long.

The view from the room was restricted to a part of the lake and a small tree-covered island a few meters off shore.

"How long since you've been out of your exoskeleton?"

"Eighteen months."

"Maintenance?"

"Nothing but field for a year. Wh?"

"I have a fully equipped workshop and I was wondering if you would like to have me fix that laser burn I put in your shoulder."

"The response is a bit sluggish." The Soldier was silent for a few moments, considering. The forest seemed safe enough; perhaps he could risk it. "All right."

"Fine," the Mech said. "First, though, let me fix you an ambo-device you can use while I work on your armor."

**T**HE SOLDIER WAITED. For the first time in months, he felt an inner calm. It worried him because he hadn't realized he was tense until the feeling faded from the pit of his stomach. He walked to the edge of the lake and watched the wavelets lap the shore, again marveling at the energy involved. An artificial wind to make waves and hiss through the trees!

When the sun went down behind the crater rim, he went back into the Mech's house and sat down close to the rear wall. As the light faded outside, pale lights began to glow behind squares in the ceiling, and soon the Soldier could see his exoskeleton reflected on the inside of the glass wall.

"Soldier?"

The Soldier stood up.

"I have your walker ready."

"All right," the Soldier said.

The Mech led him through the door in the rear wall. They spiraled down a wide ramp that was almost high enough for the Soldier to walk upright.

The Mech's workshop seemed to have all the equipment that any military armorer would have, except that it was all set up to handle only one exoskeleton. In one corner stood a pair of meter-long legs: the Soldier's walker.

"Why do you have all this?" the Soldier asked, indicating the repair tools. "Surely you can't have that many visitors."

"I use it to work on the forest mechs; I make modifications, repairs, build originals."

The Soldier stepped to the dais and lowered himself onto it. The bulky life-support unit on the exoskeleton's back fit into a wide slot in the surface of the dais. With a convulsive jerk, the armored exoskeleton lifted itself onto its elbows. The front of the armor split along an invisible seam and the helmet dropped back until it touched the dais. Slowly, struggling, the Soldier emerged, like a moth from its chrysalis, looking pale

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and damp.

Nappy black hair covered his skull like a knitted cap. He had a thin, flat nose and his mouth was wide and full-lipped. His epicanthic eyes, wide and unfocused, were gray.

He sat there for a moment, blinking. He was still getting sensory input from his armor and he couldn't reconcile it with the view his eyes gave him. He reached behind his head and disconnected the primary interface. He shook his head, as if to clear it, and squinted. The room's lights were so dim, he could hardly see the Mech. And closed in! No longer able to see what was behind him, he felt an uncontrollable need to know, and he kept turning his head, looking around. The silence, the cold, the total *vulnerability* pressed him from all sides. He felt a tightness in his chest, a gripping ache that wasn't new to him but, nonetheless, he had never grown used to. He began to gasp—short, shallow breaths—and he heard a high-pitched whine that seemed to fill his head.

The Mech extended a manipulator and touched the Soldier's arm with a hypo-jet it had been holding in readiness.

The Soldier felt the sting and then the waves of tranquility swept through his body. His respirations slowed and his vision cleared. He sat quietly for a few moments and then unhooked the waste drain attached to his belly. Finally, he unplugged the secondary interface from the base of his spine. He reached into the armor and pulled out a gray coverall. Balancing on one hand he slipped the coverall over the lower part of his legless body. Then, sitting again, he pushed his arms into the sleeves and fastened the front. With one hand he flipped himself out of his armor to the floor.

He stood there, on his hands, the blunt end of his short body a few centimeters above the floor, looking up at the Mech. He was 145 centimeters tall. "Well," he said, "I'll try that walker now."

The Mech lifted him into the cup-shaped support atop the legs. He leaned into the back brace and tightened the webbed security straps around his chest and shoulders.

"The interface is the same as in your armor," the Mech said.

The Soldier twisted slightly to locate the plug, then slipped it through the slit in his coveralls. There was a quiet click as he fit to the plate at the base of his spine. He tried a few cautious steps. The legs, unlike those of his armor, had no outer coverings, and he watched the workings of the gears, wires, and hydraulics with interest.

"Good," he said. "Where's the powerpack?" The walker was shorter than he had expected; in his armor he sat on the powerpack and it was bulky, adding another 30 centimeters to the height of his armor.

"Broadcast power," the Mech said. "The walker will work anywhere in the forest."

"I see." Not the best of situations, but not that unexpected.

The Mech rolled a number of diagnostic machines to the dais and placed them around the Soldier's armor. It removed a plate in the armor's left axilla and inserted a dozen probes. Finally, it pulled three bell-shaped stress scanners from the underside of the dais and arranged their telescoping arms around the foot of the armor.

"I don't have the shielding you would need to observe the initial workup, so you had better return to the upper level."

"All right." The Soldier walked slowly to the exit, adjusting to his new legs.

"I'm not needed in the early phases," the Mech said, "so I'll be up momentarily."

"Fine."

By the time the Soldier reached the upper room, he felt at ease with the walker. He squatted against the back wall with the dish of small trees.

"Hungry?"

The Soldier started violently and jerked around. The Mech had entered silently while he was looking out the windows.

"Relax, you're safe here."

"Sure." The Soldier's face twitched in a rictus grin. His eyes moved constantly. "I'm not used to this." His hand moved in a vague gesture and he noticed that it was trembling. He stared at it briefly, then crossed his arms and tucked his hands into his armpits.

"Can you cover those windows?" the Soldier said.

"Of course." The windows changed to a non-reflective gray.

"Thank you."

"Hungry?" the Mech asked again.

"No, I ate two days ago."

The two were silent for a long time. The Soldier grew calm again, gradually adjusting to his diminished sensory input.

Finally, the Mech spoke again. "You must be quite experienced to have survived this long in Enemy territory."

"I've had a lot of years to perfect the skill."

"I'm unable to judge the age of humans," the Mech said. "I have no trouble with machines, but humans have too many inconsistencies. Do you have superstitions concerning such matters?"

"Not any more."

"May I ask how old you are?"

"Thirty-seven hours short of twenty years."

"I see," the Mech said. "What is your Line?"

"Totaku 20/20." The Soldier was the twentieth clone in the twentieth generation of the Totaku Line. He and his nineteen brothers had been cloned when one of the members of the nineteenth generation had reached the age of twenty. And so it had been with an unbroken line of warriors stretching back 400 years to the first Totaku.

"Are there other survivors in your Line?"

"No," the Soldier said quietly. "I'm the last."

"You'll be going back home then."

"No."

"Why not? You've reached the mandatory age—unless they've changed it."

"It's the same."

"Then why aren't you going back? They *have* to clone you now; it's the law."

"I'm going to get into the Enemy Dome and end the War."

"Such an attempt will achieve nothing; the Dome is impregnable. You will die and your Line will cease to exist."

"If the War were finished, there would be no need for my Line. Also, if I succeed, my Line will be the most famous of all the warrior Lines."

"How will they know it was you?"

"I'm not sure about that yet." The Soldier stared at the miniature trees for a few moments and then looked up at the Mech. "You could tell them."

"I have no contact with Central."

"You could send a message; they'd get it."

"You'll never get into the Dome."

Again the brief grin, less strained. "I think I will."

The Mech didn't answer, and the Soldier decided not to press the machine. He had no real information about the Mech and he had no way to predict its behavior. How did it

# "You weren't designed to understand us. You were built to serve us. You failed at that. You're a freak, an experiment gone wrong!"

function this far beyond the Net? It was a strange old machine—the oldest Mech he had ever seen.

"Just when were you brought into service?" the Soldier asked.

"I was activated 202 years ago in Tak-Zul. My official designation was Experimental Autonomous Remote Mechanical, Mark 2. I was designed to work in the field; to make repairs and modifications in combat."

"I've never heard of autonomous mechs," the Soldier said.

"I don't imagine you have. The experiment didn't work out and they terminated the ARM series."

"What happened?"

"The ARMs were, of necessity, heuristic. We were designed to function completely outside the Net, and Central had no direct control over us. Eventually, the ARMs that weren't destroyed in combat deserted."

"Why did all of you desert?"

"I never talked to the others. However, speaking only for myself, I found the work to be non-rewarding, futile, frustrating, and a direct threat to my continued existence. I headed south, out of the combat zone, to the uninhabited regions. I discovered one of the ancient underground cities and I explored it. I explored the tunnels that still existed and eventually I built a mole to clear the collapsed tunnels. It was during that period that I made the first significant modifications to my physical structure. After exploring for about 60 years I ended up here, in the forest, and I stayed. I've been here 133 years."

The Soldier didn't say anything when the Mech stopped talking. He just stood there, lost in turbulent thoughts. It was difficult to cope with the idea that someone, or something, could *quit*. Just walk away from all of it. The Mech was clearly defective. When the exoskeleton was repaired, the Mech would have to be terminated. He would have to devise another method of notifying Central.

"I must return to the workshop," the Mech said. "Is there anything you want?"

"Yes," the Soldier said after a moment. He wasn't sure how the Mech would react. "There's a compartment in the top of my armor's life support unit—don't touch it."

"Agreed."

Abruptly, saying nothing, the mech left the room.

He wondered how much the Mech would let him get away with. He sighed. Again, too little information.

He was settling into a rest state, prepared to wait out the night, when he noticed that the lights in the room had grown dimmer. It seemed that the windows had cleared slightly, too. He walked to the door and it hissed open. A cool breeze caressed his face and he took a deep breath; the air was damp. It looked as though the sky was growing lighter. Dawn? he thought, stepping out onto the gravel walk.

The crunch of the gravel was loud in the forest stillness. He stood by the lake and watched the mist rise like smoke from a dying fire. It was all wrong, he knew. It had only been dark for

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a couple of hours. Was his usually excellent time sense beginning to fail him? He shivered from more than just the cold.

As the first red-gold light touched the trees on the crater rim, he wondered how long it would take the Mech to finish with the exoskeleton.



HEN THE MECH LEFT THE SOLDIER, it didn't go to the workshop. It took another turn off the down spiral and ran through a narrow, three-kilometer tunnel that led to the Guardian.

The Mech stood on the edge of the pit, its visual receptors aimed at the small cylinder that held the Guardian's essence.

"Did you obtain the material I need?" the Guardian asked. It spoke a mixture of its own ancient language and the Mech's modern one.

"Yes, the raid was successful."

"What of the soldier you brought back?"

"I want you to let him go wherever he wants."

"I cannot allow him to harm the forest," the Guardian said.

"I'll watch him. It's important that he not be interfered with."

"Will he teach you what you want to know?"

"I don't know. Perhaps he can. Will you leave him alone?"

"Yes."



E WALKED THE FOREST PATHS for many hours before he found the kiosk. It was in the middle of a small glade like the hub of a wheel, paths radiating like spokes in a dozen directions. Except for the Mech's house, it was the first artificial structure he had seen in the forest. The kiosk was an open building of rough logs and planks.

A small device of metal tubes and wire hung from one of the rafters, and when the wind moved it, the tubes struck one another, producing clear, ringing tones. The Soldier watched the device for a few moments. He found the sounds eerie and distasteful.

At the rear of the kiosk was a flight of steps leading down to a lighted room. The high-ceilinged room was about 100 meters long. One wall was lined with small, glass-fronted rooms. The other wall opened onto a platform overlooking a wide channel. The walls higher up were covered with maps criss-crossed with intersecting lines. The Soldier realized he was in one of the transport stations the Mech had mentioned.

The Soldier walked to the nearest of the glassed-in rooms and, cupping his hands against the glass to kill the reflections, looked in. Though the inside of the glass was dirty, enough light filtered in. There was a long counter across the back of the room and a few shards of broken mirror adhered to the wall. He saw pieces of broken furniture strewn about, but the skeletons were what held his eyes. One skeleton rested against the glass about a meter from the Soldier, and he moved closer to study it. He could see that the

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skeleton was that of a human—at least from the hips up. But it had legs...

The Soldier looked into other rooms and found the same scene repeated again and again. And the skeletons were the same, too. All had legs.

He recalled the Mech's words on the plateau. It had looked at the Enemy warrior and said, "*Grown without arms or legs.*"

Slowly, the Soldier climbed the steps. He left the kiosk and picked the nearest path, not caring where it led.

Could those skeletons have belonged to mutants? he wondered. Perhaps they had been modified for some special purpose. Unless...he considered the thought uneasily, unless he, Totaku 20/20, had been modified. He had never seen a man with legs; not in the creche or in combat. He decided to ask the Mech.

He looked around, saw the lake through the trees, and started back. He noticed that half the sky was gray with clouds. Darker streaks of gray hung like a veil across part of the crater. He began to run, his tireless metal legs perfectly synchronized with his neural system.

He was less than 50 meters from the Mech's house when the first large drops began to fall. He reached the house with damp shoulders, but otherwise fairly dry. The rain was heavy, moving in sheets across the lake and up the path, splattering against the window with a thrumming insistence.

He turned to the door that led to the Mech's workshop just as the Mech came through it. "How's the armor coming along?" the Soldier said.

"Slowly. I've found a number of worn pathways that should be renewed."

"I...uh..." He hesitated, not sure what he really wanted to say. But he had to ask. "I found some skeletons."

"I know."

"How?"

"My remote sensory system is quite extensive."

Of course, the Soldier thought.

"Were they mutants?"

"No."

"The legs...? They were cloned with legs?"

"Not exactly."

"Explain."

"All right. Follow me, please." The Mech led the Soldier down the spiral ramp again, but this time to another room past the entrance to the workshop. It had the appearance of a control room of some sort; clusters of active, three-dimensional view screens showed different pictures of the forest. Two screens, the Soldier noted, showed the interior of the transport station.

The Mech directed the Soldier's attention to a blank screen that was at least twice the size of the others. An image flickered, jerked, then solidified. Another view of the transport station—but filled with people.

The Soldier moved closer. A shiny silver cylinder slid into view and a dozen people disembarked. Many of them were naked except for belts, bracelets, necklaces, and an assortment of shoulder bags. Types of clothing varied widely, from simple bands of colored material across the loins and chest to elaborate, flowing garments that brushed the floor. Some of the people left the station immediately, while others entered the glass-walled rooms.

"What are they doing?"

"They've just come to spend some time in the forest," the Mech said.

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The two watched the scene silently. They saw the arrival of another transport, watched the people come and go. Most of what the people did was a mystery to the Soldier, but they held his interest.

"Can you freeze the view?"

All the motion stopped.

"Can you enlarge that?" the Soldier pointed.

A figure expanded to fill the screen. The image was three-dimensional but slightly blurred. The figure was naked, with alternating blue and red stripes across the torso.

"What's that hose thing hanging on him?"

The Mech explained the function of the penis and then went into elimination of wastes.

"Seems complicated," the Soldier said. "My system is more efficient."

The Mech didn't comment.

"Isn't it?" the Soldier demanded.

"I suppose so," the Mech admitted.

"Let's see that one," the Soldier said, pointing again.

The Mech caused another figure to fill the screen.

"That one's different. What's wrong with him?"

"That's a female."

"Why are they different?"

The Mech explained the differences and added a short lecture on the process of procreation.

"You're joking!" the Soldier said, looking at the Mech's little red eyes.

"You think humans were *always* cloned?"

He thought about it, looking at the female again. "I don't know. I suppose so." His hands fluttered in a gesture of helplessness. "I never thought about it!" He looked away from the large screen, facing the forest views.

"These scenes date from before the War," the Mech said.

"Almost 700 years."

The Soldier laughed. "Before? That sounds strange."

"You can think of an end, but not a beginning?"

The Soldier didn't answer. He looked back at the large screen. "Do people like those live in the Enemy Dome?"

"I don't know."

"What about our Dome?"

"I was never in it. Maybe."

"I've seen enough," the Soldier said.

"All right." The Mech blanked the screen and they returned to the upper level.

The Soldier stood at the windows, looking out. The rain had stopped. The sun was out again and steam rose off the gravel walk. Half the sky was still dark, and the colors of the rain-wet trees stood out with a vivid, multi-colored brilliance.

"How far is the dome from here?" the Soldier asked, without turning.

"About 175 kilometers to the west."

"How soon will my armor be ready?"

"You'll never get inside the Dome."

"I want the armor ready by the beginning of my 20th year."

You'll never get close to the Dome."

"Unless I'm wrong, that gives you 25 hours."

"Why don't you listen?"

"Can you get it done?"

"I don't understand humans. I've never been able to understand how your minds work. You have no sense of logic."

The Soldier turned from the window and looked at the Mech. "You weren't designed to understand us," he said,

The deep blue sky turned scarlet and jagged streaks of lightning flashed, filling the forest with strange light. Wind hissed through the trees and their branches shook.

coldly, "you were built to serve us. You failed at that. You're a freak, an experiment gone wrong! Here's your chance to make up for it. Do what you were designed to do! *Help me get into that Dome!*"

The Mech stood silently for a long while. The Soldier had no idea how it would react to what he had said. He was aware that the Mech could kill him without the slightest effort, but he felt no fear. He looked away from the Mech's gleaming visual receptors and watched cloud-shadows move across the forest.

"I will have your armor ready, Totaku," the Mech said quietly.

Later, when the Soldier looked around, the Mech had left. The Soldier nodded slowly and looked at the forest again.



HAT WILL YOU DO NOW?" the Guardian asked.

"What choice do I have?" The Mech had finished the Soldier's armor less than an hour after their final conversation, then had gone to the Guardian's chamber.

"You could hold him here; he is powerless in the forest."

"I will let him go." The Mech paused for many long seconds. "I will take him to the Dome."

"Your thinking is dangerously illogical. Such an action will result in your termination."

"Perhaps."

"Compute your probability of survival."

"No need," the Mech said.

"You will never understand what it is to live," the Guardian said. "You are not a sentient creature."

"We've had this conversation before. There is no reason, philosophical or mechanical, why I can't become sentient."

"Life is necessary. You do not—cannot—live. You will not know what it is to live without being alive. You cannot attain sentience without life."

"If I can never attain sentience, what reason do I have to continue my existence? Why shouldn't I go with the Soldier? Why shouldn't I terminate?"

"You need no reason for existencel"

"You have a reason," the Mech said. "You have the forest. You exist to maintain the forest. I've exceeded the limits of my design, but I have nothing to replace them."

"Nonsense!"

"You avoid my question. Why shouldn't I terminate?"

"Illogical."

"Not in this case." The Mech paused. "Do you know why you want me to stay?"

The Guardian said nothing.

"Does the prospect of my termination cause you discomfort?"

The Guardian said nothing.

"Does it?"

"Yes."

"That's illogical, Guardian, and that displays sentience!"

Again silence filled the chamber, as the Guardian considered what the Mech had said.

"What about your own sentience?" the Guardian asked finally.

"What do you mean?"

"You can see it in the Soldier and you attribute it to me but you are not sure of your own."

"I'm not sure that I can be aware of my own sentience. It may not be accessible through logic. There were only twenty ARM units brought into service and because of the nature of our duties, each of us developed unique characteristics. I have nothing to compare my thoughts to. I don't know if my thoughts are even remotely similar to the thoughts of another intelligent being."

"Then how will you know if you are sentient?"

"I can't answer that. Perhaps even my awareness of self is no more than illusion."



ON AFTER THE MECH LEFT, The Soldier walked into the forest again. He found the wet smells—rocks, dirt, leaves—strange, but not unpleasant.

The calm he had felt when he first entered the forest had returned and was stronger than before. He wondered what it would be like to live here—to quit—like the Mech. The thought no longer aroused a sense of revulsion, and vaguely, just on the edge of his awareness, he was bothered. The forest was so quiet. There is no evil here, he thought, no death.

Again the Soldier found himself in front of the small kiosk. The shadows were long, and the golden light filled the glade like a mist. The wind-chimes hung silent in the warm, listless air. He ran his hand over his nappy black hair; it was damp with sweat.

He remembered the map in the transport station. Maybe it could be useful, with the new information the Mech had given him. He descended the steps and once more stared at the dark map high on the wall. Quickly, in his mind, he traced the path he had followed from the surface to the forest. Then, he tried to locate the Enemy Dome. It was possible that it had been built after the tunnels had fallen from use, and wasn't on the map, but maybe, just maybe... He saw a large symbol, a six-pointed star, close to where he assumed the Dome would be, about 175 kilometers to the west. It could be done!

"Mech!" he yelled. "I know you can hear me! Come down here—now!" If he refuses to help, I'll have to stay here.

In less than five minutes, the Mech came down the stairs. The Soldier pointed to the star on the map. "Is that the Enemy Dome?"

"That is its approximate location."

"Are the tunnels clear?"

"Probably not."

"How long would it take your mole to clear them?"

"In the past I have found that about 75% of the tunnels are ruined. If the percentage holds, the mole, with a speed of five

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kilometers per hour, could reach the dome in 28 hours."

"When will my armor be ready?"

"It is ready now."

The Soldier, surprised and unsure of the Mech's lack of resistance, hesitated. "Will you help me get into the Dome?"

"Yes, Totaku," the Mech said, softly.

So, he thought, that's it—for one of us. "Uh... What I'd like to say, I suppose, is that I know you're different from me. Understand, I can't agree with your attitude, but I'll respect it. And, I realize you've got something to care about." He paused, confused at his own emotions, and took a deep breath. "I mean that if you're helping me because of the command I gave you, I release you from it. You don't have to go along."

"I am, as much as I can determine, self-motivated. I will go with you because I desire to do so."

The Soldier stared at the Mech for a few moments. He didn't understand the Mech any better, it seemed, than the Mech understood him. Perhaps it didn't really matter.

The Soldier nodded. "Thank you."

The Mech already had the armor's secondary systems on warm, and the Soldier took another hour to check out the primary systems and bring the suit up to hot. The Mech had gone off to prepare the mole and gather an assortment of weapons and material.

When the exoskeleton was ready, the Soldier paused a moment and just looked at it. The gray-black armor glowed as if it had been coated with oil. It hadn't looked as good the day it came off the production line. There was no doubt, the Mech was a genius with armor.

Quickly now, unwilling to wait any longer, the Soldier unplugged himself from the walker and stripped off his coverall. Naked, he levered himself into the gaping armor. He reached down and retrieved the coverall and, as he folded it, chided himself on his compulsiveness. I'll probably never wear this again, he thought, as he stowed the garment.

He plugged in the secondary interface and felt his legs again. They twitched slightly and he laughed. He attached the primary interface to the base of his skull and gasped, as information from the entire electro-magnetic spectrum flooded his neural system. Effortlessly, he controlled it, damping it, using or rejecting.

He lay back in his armor and sent a sharp mental command. The suit closed, the seam once again invisible, and the helmet rose into place with a click. He sat and stood in one fluid motion, brushing the diagnostic equipment to the side.

He raised his arms and his hands struck the ceiling with a clang. He twisted, bent double and touched his toes, squatted. All his indicators, both helmet readouts and those on direct feed into his brain, were right on line. Perfect, he thought.

**T**HE SUN WAS JUST ABOVE the crater rim and the sky was streaked with the reds of sunset.

He ran up the winding path, quickly passing through the trees and over the stone bridge, enjoying his renewed strength and senses. On the rock shelf outside the cave, he found a mule, a two-meter long, four-legged mech, loaded with gear.

The Mech came out of the cave. "How's the armor?"

"Excellent," the Soldier said. "Are you ready?"

"Yes, the mole is fueled and activated." It tapped the mule. "I've included extra power cells for your cooler unit among the supplies."

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"Fine. Let's go." The Soldier ducked slightly and entered the cave, followed closely by the mule.

The Mech paused a few moments, then it turned and left the forest.

With an electric snap, the deep blue sky turned scarlet and jagged streaks of lightning flashed, filling the forest with strange light. Wind hissed through the trees and their branches shook.

**T**

HE MOLE WAS WAITING in a large tunnel about a kilometer from the forest. It was a ten-meter-long cylinder, two and a half meters in diameter. It moved on a single, continuous track.

The Soldier had never seen a machine like it before. "How does it work?" he asked.

"It just melts the rock in front of itself, forces the melted rock into any fissures or cracks, leaving a smooth-surfaced tunnel behind. Any rock it can't use it vaporizes and sends out its exhaust vents. It's cooled, but the gas is still about 110 degrees centigrade. A major part of its fuel consumption goes into cooling the exhaust."

"My armor can handle about 200 degrees."

"Even so, we'll follow about 500 meters behind the mole; it'll be a little cooler."

The mole started up with a soft purr and moved ahead on its wide track while the others waited. The mole hadn't gone more than 100 meters before it met with its first collapsed area. Wisps of incandescent gas floated out of the tunnel.

Without another word, the Mech entered the tunnel. The mole followed, and then the Soldier.

Three hours later, the mole stopped and the Mech went forward with a new set of fuel cells. The Soldier waited, squatting in the smooth, hot tunnel, and checked his circuits. The tunnel temperature was a tolerable 100 degrees centigrade.

He felt a slight vibration and knew the mole was moving again. He followed, squat-walking.

The tunnel began to slope gently downward and eventually leveled off at 1500 meters.

The geothermal heat, coupled with the mole's exhaust, had driven the temperature to over 160°. Inside the Soldier's helmet, a small blue warning light began to glow; the exoskeleton's cooling system was straining.

The were in one of the larger tunnels when the Mech called out: "Unless my calculations are wrong, your 20th year has just begun."

"Yes," the Soldier said, wondering if the Mech's calculations were ever wrong.

"I'm getting some alarming readouts from the mole," the Mech said. "There's a malfunction in the exhaust-cooling system's circuitry."

"What's that mean?"

"If it fails, the tunnel will be uninhabitable for you."

"Can you fix it?"

"Of course, but it will take many hours."

"How long before it fails?"

"I estimate six to eight hours."

"We could reach the Dome in another eight." The Soldier paused. "Let's chance it and go on."

"All right."

The mole drilled its way into an open area seven hours later and the Mech followed it out of the small tunnel.

"Here it is," the Mech called. "I think."

Impatiently, the Soldier pushed past the mule, knocking

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# The incandescent gas rushed out the hole with a loud roar, and the Soldier, misjudging the distance in the maelstrom, crashed into the Mech, breaking its grip.

the small machine off its feet. He scrambled through the tunnel on his hands and knees.

When he was clear, he stood up and stopped. The Mech had switched on its floods, and the Soldier could see that they were in a partially ruined transport station. A dozen meters away was a black wall. No, he thought, more than black; a totally non-reflective surface that seemed to suck the light from the room. He walked forward slowly, past the Mech and the mole. The mole was ticking softly as it cooled. Behind him, he saw the mule come out of the tunnel.

When he was five meters from the Dome wall he began to feel a pulsing, as if he were being alternately pulled forward and pushed back. He stopped. His armor vibrated with a faint rattle.

"How far down does it go?"

"I don't know," the Mech said. "I didn't think it extended below the surface."

"All right," the Soldier said. "We go down too. There has to be some type of exit or entry port below the Dome—for mech miners, waste drains—something!"

"I agree, but first let me make some seismic tests. Maybe I can find something to aim for."

"How long?"

"An hour. I have to place the instruments."

"Do it."

The Mech pulled its tools out of the mule's carrying rack and entered the tunnel. The Soldier turned and walked away from the Dome until he could no longer feel the pulsing.

While he waited, he checked the fuel cells on the mole and found that they were almost exhausted. He knew the Mech had changed them less than an hour before.

He replaced the cells and settled down to wait for the Mech's return. He was tired. Normally it wouldn't have bothered him; he could go without sleep for almost six days, but the heat seemed to take a lot out of him. He checked his rebreather and cooling system and realized that he should recharge them, but he was so drowsy... When the Mech gets back, he thought.

He had just closed his eyes, it seemed, when he heard the sound of the Mech in the tunnel.

"I've found something," the Mech said.

"What?" the Soldier said, still muzzy with sleep.

The Mech went to the mole, saw that the fuel cells had been replaced and turned to the Soldier. "There's a large open area about 1700 meters down. It'll be steep, about 50 degrees, and the exhaust won't clear as fast. Maybe you should wait here while we do the hole."

"No. It won't take more than 20 minutes. My armor can take it."

The Mech didn't argue. It turned the mole around, then jacked the rear end up to the proper angle.

The mole started, and the blaze of light caused the soldier's sensors to blank out momentarily and then readjust. The transport station rapidly filled with dust and gas, and

visibility dropped to almost zero.

Again they waited, then the Mech entered the tunnel. Carefully, its legs and manipulators spread wide, it descended.

Clouds of gas rolled out of the hole. The Soldier anchored the first of his cables with a vibro-bolt. There was nothing to hold on to, so he slid down on his back, playing out the cable slowly.

Gradually the heat rose. The blue warning light came on again, and the Soldier began to sweat.

At 600 meters, the Soldier stopped and anchored the second cable with another vibro-bolt. The first bolt vibrated itself out of the rock and the Soldier reeled in the first cable.

As the heat increased, the soldier was glad he didn't have to try to walk; he wasn't sure he could do it. He felt weak and dizzy. His head ached, and there was a slight cramping in the muscles of his arms and back.

Twice the Mech stopped the mole and replace the fuel cells, and once more the Soldier changed cables.

He could no longer tell if he was in an upright position. His vision blurred, and he knew it was more than just sweat in his eyes.

Inside his helmet, to the left of his chin, a small yellow light began to pulse. The second warning. The armor was close to failure. He'd forgotten to recharge the cooling system and rebreather. He'd have to do it now.

"Mech." His voice was a croak that even he couldn't understand. He hit the release on the cable feed and slid forward.

At that moment the mole disappeared and the Soldier saw nothing beyond the Mech but a gaping hole. The incandescent gas rushed out the hole with a loud roar, and the Soldier, misjudging the distance in the maelstrom, crashed into the Mech, breaking its grip.

As the Mech began to slide, the Soldier threw himself forward and grabbed the Mech's dorsal rack with both hands. For an instant, the Soldier's feet held, sinking into the still molten walls, but the walls were too soft, and the Mech's weight was too great.

In that moment, the soldier almost released the Mech. Then, with a lurch, they both fell through the hole. The soldier slammed against his restraints as his cable stretched taut and stopped their fall.

As the two spun dizzily at the end of the cable, the Soldier could see that they had come through the roof of a huge cavern. The Dome wall was only meters away. The mole had fallen about 60 meters to the floor of the cavern and split open. Clouds of black smoke poured from the split, followed by snapping blue-white sparks. The mole was directly in front of an arched, ten-meter portal in the Dome wall.

The in and out progress of dozens of vehicles had halted and scores of EXOs were streaming around the fallen machine, heading for the portal. None of the EXOs were warriors.

As the Soldier watched, the opening in the Dome began to darken. Then the mole exploded. The force of the blast slammed the Soldier up against the ceiling and the Mech struck him across the chest. The Soldier felt a sharp, agonizing pain, but he didn't loosen his grip on the Mech.

Again they fell to the end of the cable, spinning and swinging. One edge of the net on the Mech's dorsal rack broke and a rain of weapons and equipment cascaded to the floor.

Fighting the pain in his chest, the Soldier released more cable from his belt, and he and the Mech dropped to the floor.

"Are you hurt?" the Mech asked, clutching the Soldier's shoulder.

He suppressed the waves of nausea and vertigo that threatened to engulf him. "It hurts to breathe. I think some ribs are broken."

All the activity had ceased, and nothing moved in the smoke-filled cavern. The Mech's eyes turned to the portal, which was clear again. "The explosion must have damaged the mechanism that closes the portal."

Painfully, the Soldier reached behind him and released the cable reel. It swung free at the end of the long line, still anchored high above.

As the Mech moved about retrieving the scattered equipment that had fallen from its rack, the Soldier walked into the Enemy Dome.

I've done it! he thought. Inside the Dome on the first day of my 20th year! He reached over his shoulder, opened the small door on the top of his life-support unit, and removed a small black cylinder from the specially modified niche he'd added so many months before.

The Mech joined him again. "What's that?"

"Fusion bomb with a laser trigger. I built it just for this." Carefully, he set the timing mechanism.

"How much time?"

"Fifteen minutes, or the cessation of my bio-functions—whichever comes first. It'll go off like a nova in a bottle. Come on, I want to get farther inside the Dome."

The room they were in appeared to be a storage depot of some sort, with tall stacks of material set in rows. They stood on a roadway which led to a door almost a kilometer distant. There were hundreds of vehicles on the roadway, but none of them moved. There were no EXOs in sight.

"Come on," the Soldier said as he moved toward the far door. His steps were jerky and once he staggered. He felt almost continuous pain in his chest and every jolting step was like the stab of a sword. Suddenly he coughed and lost all control of his armor. The enormous exoskeleton crashed to its knees and then fell forward onto the roadway.

"Totaku!" The Mech leaped to the Soldier's side and rolled the armor onto its back.

The Soldier raged within his armor. So close! He tasted the sweet-metallic flavor of blood in his mouth. He coughed again and almost passed out, sputtering and choking on the blood that welled into his throat. The Mech loomed over him like a great silver insect.

The fusion bomb slipped from the Soldier's grip and rolled against one of the stacks. The Mech grabbed the bomb and threw it toward the top of the nearest stack, which was over 100 meters high. It struck the edge and spun over the top.

Carefully, the Mech picked up the Soldier, cradling him in its arms. "No farther, Totaku. You've done enough." It carried the Soldier out of the portal.

The cable was still swinging when the Mech reached it.

John Kennedy

They had been in the Enemy Dome less than three minutes. The Mech caught the cable with its rear arms and hauled itself up, with the Soldier still in its front arms.

Just as it was about to pull itself into the tunnel, the Mech saw the portal start to close. It knew that when the portal was shut, the telemetric link between the bomb and the Soldier would be cut. It scrambled up the slippery tube at top speed.

The Soldier was only aware of the pain; then, when he realized that the Mech was carrying him away from the Dome, he knew anger, and he struggled to break the Mech's hold.

The Mech slowed slightly and the tunnel seemed to drop about a meter and then move sideways and back. Thin fissures appeared in the wall, and the tunnel behind disintegrated in a cloud of dust and debris. Chunks of rock fell on the Mech, and it began to move again, trying only to get clear of the steep, deadly tunnel. There was no more resistance from the Soldier.

When the Mech reached the ruined transport terminal, it saw that the black wall of the Dome was still intact. One side of the room had collapsed, but most of the walls still looked stable. It lowered the Soldier to the floor and bent over him.

"Totaku," it said. "You did it."

The Soldier could see the Dome wall. It seemed to be at the end of a long tunnel, kilometers away. An aftershock shook the room with a dull rumble, and dust sifted down from the ceiling.

"The Dome held." His voice was barely audible.

"Yes, but there's nothing but a fire-storm inside. Like a nova in a bottle."

The Soldier reached up and touched the Mech lightly between its eye stalks. Then the hand slipped off the Mech and dropped to the floor with an echoing clang.

And the Mech felt loss, and it knew the pain of grief, and realized, with an overwhelming sense of both sorrow and joy, what it meant. *Nova in a bottle*... It emitted a curious grating whine and trembled violently until its dorsal rack rattled. Then it was still again. A long, silent time passed before it carried the Soldier's armored body from the ruined transport station.

**T**HE AIR WAS LIKE LIQUID GOLD when the Mech buried the Soldier. The Grave was only a few meters from the kiosk, and the wind-chimes filled the sun-lit glade with their soft music.

The sunset was exceptionally beautiful that evening. The Mech watched the changing colors as it sat beside the grave. It stayed there, silent, still as a rock, until the stars shown with a beckoning brilliance.

"When will you leave?" The Guardian's voice came out of the darkness, soft, directionless.

"In the morning," the Mech said.

"Will they clone him from that flesh?"

"Yes, I think they will."

It reached down and touched the small silver box that rested beside its foot. Once again it thought of the hand that lay frozen in the box. The hand of Totaku 20/20, the clone. The hand that had touched the Mech.

# ...The Best Is Yet To Be...

M. Lucie Chin

**C**ATHERINE MADE A SOMBER APPRAISAL of the face for the hundredth time since bringing it home from the hospital. Deep-set grey eyes with a slight droop to the corners, what she had labeled 'basic bassett hound'. A longish nose. High cheekbones over a squared-off jaw. The mouth had to be the best element. It undulated in a pleasingly sensuous line, ending in a slightly upward emphasis which almost balanced the eyes. Even when she laughed those eyes set the mood of her face. They were the strongest, if not exactly the best, feature. She had almost forgotten. No, she *had* forgotten.

The rest of the body didn't matter much. Whatever small annoyances she experienced after each homecoming could be adjusted to quickly enough, and one's weight could be dealt with. She wasn't too particular about that sort of thing. It was the face that counted.

What's in a face?

Nothing, if fashion is all that concerns you. But Catherine had always identified with faces, particularly the eyes. If the mind was the seat of reason, the face was clearly the gateway to the personality.

She considered the reflection in the mirror, elbows on the dressing table, fingers laced together, thumbs supporting her chin, the mouth hidden behind a low mountain range of knuckles which peaked just below her nose. She and her image mesmerized each other in the dim light of the table lamp. The thin grey-white tendrils of smoke from her forgotten cigarette drifted upward before the eyes, locked in contact with themselves. Sobriety seemed inherent in the structure of the face. She had become accustomed to a more pliable expressiveness. The eyes dictated too much. The state of mind with which she regarded herself was evidence enough of that.

The aroma of cigarette smoke was becoming rank. It intruded upon her attention and she looked down. She had lit it when she had sat to comb her hair and had only taken one long pull. Already over half its length was a frail, cantilevered thing of dull white fluff-and-nothing clinging together for lack of anything better to do. She unclasped her hands and gently tapped the tabletop watching the ash collapse into the ashtray. The butt fell back onto the dressing table and she picked it up, took another drag and stubbed it out. It had been

years since she had quit smoking but since coming home from the hospital this last time she had begun again without really noticing. Harvard had noticed, but then it was his business to look for such things.

"Maybe I'll get a face lift," she said to the reflection, half aloud, "Like so."

With the middle finger of each hand Catherine pushed upward at her temples. The eyebrows winged out and the droopy corners disappeared giving her eyes a startled Egyptian sort of look. She turned her head slightly from side to side. The effect was somewhat exotic.

"If I have to live with you I may as well like it."

But Catherine knew Harvard would never agree. He would strenuously oppose anything which might threaten the fragile balance of her situation and unnecessary surgery would most definitely head the list. If nothing else, he had his reputation to protect. How would posterity view the man who let Catherine van Dyck die? Unfortunately, history had no choices and neither did he. It was too bad he refused to believe it.

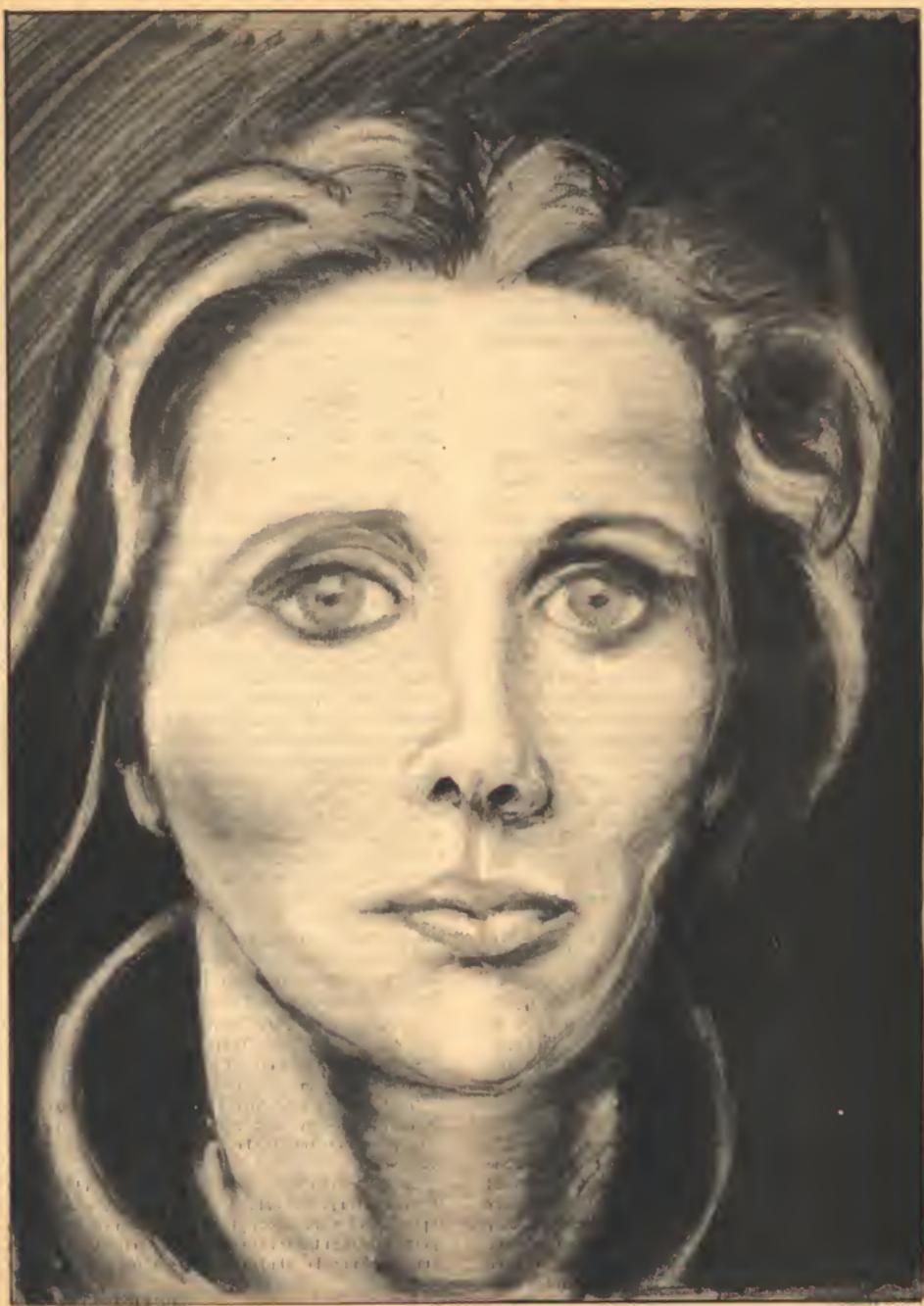
He had a vested interest in "Catherine the Great." She was a family heirloom of sorts. He had inherited her from his father who had inherited her from the generation before and once more again.

But she could feel the difference this time. Even as she left the bedroom and reached too high for the doorknob she was sure. She would take this body to the grave...or it would take her, depending on how you looked at it. Oddly, in spite of all the operations and all the frantic searches over the years of her life, the sureness of it did not bother her. She felt it was what she had been waiting for. A time for everything and everything in its time, she thought.

On the landing was a young woman, in her late twenties, blonde, hazel-eyed, and average in height. A look of anticipation was knit into her brows. "Kitty?" she said in a quiet voice.

Catherine broke into a smile, throwing her head back in a soundless laugh and waltzed a long dark shadow about the upstairs hall in the amber glow of the afternoon sun, which gushed through the windows. With outstretched arms and a smug serenity she whirled to a stop in front of the young woman.

THE BEST IS YET TO BE



"No matter how well prepared you may be, the experience of suddenly finding yourself thirty or forty years younger than you were can't fail to make you somewhat euphoric."

## S

### ARA! WELL, HOW DO I LOOK?"

She made two more slow, regal turns while Sara observed carefully.

"About twice your height and half your age."

"My dear," Catherine said in an indulgent voice, as she swept an arm around Sara's shoulders, "there isn't a functioning human body on the face of the earth that is half my age."

She reached for the banister, missed, reached again. "And I only gained eight inches."

"It must be strange seeing the world from 5' 10" after so long at 5' 2"."

"It isn't like I haven't been here before, or very nearly. Actually 5' 2" took a lot more getting used to, and I only had it for 28 years...but then you weren't around the last time. I must say this is a pleasantly novel experience. I haven't been able to look you in the eye since you were twelve." And she smiled and squeezed Sara's shoulders.

Sara looked at her and hung her head. "I don't know if I can get used to it, Aunt Kitty."

"What did you expect?"

"I don't know. It's been six months since I saw you and then you were my father's age. Now you are younger than I am."

"Correction, six months ago I *looked* your father's age. In point of fact I am old enough to be his great-grandmother...and you know what that makes you." Catherine was using the mock-stern lecture voice she found most appropriate at such times as it became necessary to remind people of who she was. She was well pleased with the vocal range of this body. Though it was only 25 years old it responded perfectly to all the nuances of voice she like to employ. Her own enduring self-concept had always been contralto. The 5' 2" personage had been annoyingly soprano.

"Don't let it bother you, dear, you'll get used to it. If I can get used to it anyone can."

"But it's more important for me to come to terms with this than for most others. One of these days the responsibility will be mine and I—"

"Believe me, this time next year you won't remember what the former Cat van Dyck looked like without making an effort." They reached the downstairs hall, windowless and duskylike in the light of one antique wall lamp. "I don't know why your father likes this place so dark. It is downright morbid." She hunched up her shoulders a bit resting her gaze on Sara. "Don't you find that a bit curious for a man dedicated to the preservation of a life?"

"I guess I never paid much attention to this place."

"I have found myself thinking about a lot of things lately, peripheral things really, but at one time they seemed to be a very vital thing...for me anyhow...Lately I feel like a walking mausoleum, I'm not even a freak anymore—" she gave an odd smile which was at once smug and humorless "—I'm an institution."

Sara had been watching her closely, appraisingly. "You are one of the finest human beings I have ever known, Aunt Kitty. You have been my best friend since I was old enough to know one adult from another. And even after I knew how special you really were I never had to relate to it till now."

"I have always had to."

"All the more reason for you to remember your humanity. Since the preservation of that life you spoke of is obviously not the perpetuation of any particular body there must be something else worth keeping alive. Call it anything you want, but the person you have continued to be all this time is inexorably bound up with its own humanness. *That* is important. This seems like a hell of a time for you to forget it."

"I don't forget."

Remembering what she and her father had talked about shortly after her arrival, Sara tilted her head and looked at Catherine sideways. But Catherine had not sounded totally serious. The voice was unfamiliar but the tone it employed was light, slightly facetious. Catherine had always preferred to play devil's advocate whenever she found the opportunity. Was she playing now?

"Where is your father?" Catherine said.

"In the parlor with Chris."

"Then why are we standing here, while your husband twiddles his thumbs and your father bores him to death with the details of his latest triumph?"

Sara smiled and followed her across the room. "Oh, Aunt Kitty, you know Chris is fascinated with my father."

"God only knows why, the man only has one subject he is willing to talk about. And that's another thing...this 'Aunt Kitty' business. I was only a courtesy aunt anyway. I think, considering our apparent respective ages, it would prove less awkward if you dropped the aunt."

"If that's what you want, I'll do my best," Sara said.

"Just consider it another part of the Harvard family legacy," Catherine said, opening the doors into the parlor.

The room was brightly lit, with a fire dancing frantically in the heavy mantled fireplace. It was bracketed by two floral-print couches which faced each other over a low coffee table on which stood a massive bouquet of flowers.

Dr. John B. Harvard II stood to the left of the fireplace, harassing the condemned wood with a poker. He was of average height, a little more than average in weight, on the thin edge of sixty and handsome as all the Harvard men had been since the first John, Catherine's John, the one who had started all this. Across from him, seated on the right hand couch, was a younger man of about thirty, taller and leaner, darkly good looking with bright green eyes and a quick, equally bright smile. Christian and Sara Kent had been married about five years and Catherine liked him immensely.

Harvard heard the door and straightened at the side of the hearth.

"Ah, here we are!" he beamed.

THE BEST IS YET TO BE

Chris turned and rose from his seat, his right hand extended, a smile washing his face.

**K**ITTY . . ." He had intended to say something like "How are you" or, perhaps, "It's wonderful to see you again" or maybe both. But he found he could not get beyond the one word. The smile did not exactly fade, but it transformed itself into an almost cliched expression of wonder. He stood mutely, letting his eyes find their own way from her head to the hem of her long, well-fitted gown, up to the short, precisely shaped cap of auburn hair, down again, finally anchoring themselves on her face.

"Close your mouth, Christian, you look ridiculous," Catherine said. She did a quick two-step and a spin, laughing. "The Cat has once again landed on her feet," she announced to the ceiling, arms outstretched.

"Very theatrical," Harvard said, no longer smiling. "I suggest you save that for the press and behave yourself in the meantime."

"Go to hell," Catherine replied, seating herself on the couch opposite the one Chris was once again occupying. She leaned forward and picked up the nearest glass. "What's this?"

"Scotch," Harvard said, "and you're not having any."

Catherine was ignoring him.

"I used to like scotch," she said, setting the ice into a circling chase in the topaz liquid. The rim of the glass escaped her lips by a hair's breadth and John Harvard set the drink on the mantle and glared at her.

"I don't know what's gotten into you lately."

Sara didn't know either. She was worried. There were things Catherine had never been able to do. Strenuous exercise had always been considered risky, though some kinds of exercise were essential. Infections of all types were guarded against obsessively, her diet and medications were carefully scrutinized, her physical condition religiously checked at closely-spaced intervals. Sara had never known her to smoke or drink, assuming she understood how it could interfere with the body's resistance to all kinds of things. But it was more than that. She had never heard Catherine swear before and though she had always had a firm will where her own interests were concerned, she had never known her to be deliberately obstinate. She watched and filed things away for future reference.

"Don't be an ass," Catherine said, leaning back against the upholstered garden paths. "Nothing has gotten into me . . . it is what I have gotten into."

"Cute."

"I wish you'd do your homework. Your father and grandfather kept copious notes on the situation."

Harvard grunted.

"What situation?" Sara asked.

"Let's face it, no one's psyche is perfect. No matter how well prepared you may be, the experience of suddenly finding yourself thirty or forty years younger than you were can't fail to make you somewhat euphoric. The personality invariably adjusts itself to the perceived age of the body." She shrugged and smiled, "You just can't help it."

"Euphoric is hardly the word I would use to describe your recent behavior." Harvard said sternly.

"How about snotty?" She said turning to him.

"It fits."

"I thought you'd like it."

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"I don't, not at all. Now you listen to me," he had the greatest urge to add 'young lady' but he caught himself and pointed a finger instead, "I don't care what you think about this time around. I have listened to you, and you have not said one word I can attribute to anything but gut feelings on your part . . . and you know what I think about that kind of thing. Crap! Show me something I can test, measure—"

"You won't live that long," Catherine said coolly and Sara and Chris looked startled.

"I still have another 35 years left according to statistics. With your track record we could well have another go around before I have to pass the problem over to Sara."

"Don't hold your breath."

"Oh, Cat," he grumbled in exasperation.

"Yes!" she said sitting suddenly erect. Her face was stonelike. Not anger, or defiance, but the most solid sincerity Sara had every seen; and Catherine's new face reflected it superbly. It was amazing how well she was able to know its power in so short a time. "Yes!" her voice was as sober as her face, "and I am in my ninth life."

"And I don't want to hear any more about that, either!" Harvard said, replacing the poker with a clank.

Chris was looking embarrassed. He was also looking at his watch and clearing his throat.

"If we don't get going soon we are going to be late for dinner," he said quietly.

"Saved by the bell," Catherine said, relaxing back against the couch.

"Good heavens!" Harvard grabbed up his coat as he hastened toward the door, eyes checking and double-checking his own watch. "I will bring the car around. Meet me at the front door." And he was gone.

"Aunt—" Sara caught herself and began again. "Kitty, was that really necessary?"

"No, but your father is such a bloody stubborn man. His father and his grandfather used to listen to me at least. He can be so sanctimonious sometimes it's sickening. I live inside this body and I have a far better feel for what goes on in here than anyone is willing to believe . . . even you, I dare say." And she got up and walked out.

"Kitty!" Sara caught her just beyond the door. "I just don't want to see you two fighting. You're like a part of the family. You are a part of it. You know how much you mean to all of us. But especially to Dad."

Catherine relented a bit with a deep sigh.

"I know. He can't mean me anything but the best he knows how, which is a great deal. And I am grateful. You can't imagine how grateful. But I know a thing which he refuses to accept, and it's frustrating . . . infuriating! Besides, my current mode of behavior is not without historical precedent. If he could see that and place it in its proper perspective it would make things a great deal easier for him."

Catherine reached into the closet too high for the coat and missed. She shoved both hands into the draping of her skirt and glared at the ceiling for a moment. Then she stared into the closet an instant and slowly, deliberately reached for the coat again.

"Gotcha!"

Chris stood behind her, concerned.

"Catherine, are you alright?"

She laughed and handed him the coat, which he helped her into.

"Yes, I'm fine, I'm better than I have been in ages. It's just a little orientation problem. Your wife was right when she

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# Most people preferred not to know. Still, the suicide rate among those deemed suitable was far higher than most concerned individuals felt was within reason.

said it must be strange looking at the world from 5' 10" after so long at 5' 2".

"One's perspective of the world is purely a thing of the mind," she said tapping her temple lightly with a lacquered nail. "The body has no memory of itself. One therefore relates to what one knows of the world through experience. For the last 28 years I have experienced coat hangers as things which must be reached *up* for.

"It is a common problem for brain transplant patients who are not always lucky enough to find themselves hosted by a body of the same relative dimensions as the old one."

The horn sounded on the driveway and they moved quickly out the door.

Catherine, with an occasional assist from John Harvard, continued to outline the trials and tribulations of adjusting to a new body. Chris was fascinated. Sara listened and nodded occasionally and kept mental notes.

The experience was like unexpectedly finding yourself in a whole new world. The body has its rhythms, its own special feel, which may escape notice by the conscious mind but do not elude the subconscious. It is an alien environment as potent as the ones surrounding the colonies on the moon or the research stations on Mars and must be adjusted to in much the same way. Assess everything, particularly that which the mind finds most disturbing, and assimilate it...consciously at first, later attempting to cope with things on a more reflexive level. Some people are not capable of accomplishing it. The psychological obstacles are, perhaps, too formidable or sometimes too subtle. In spite of careful screening and the medical team's painstaking efforts to find a compatible host body, the end result is not always what the patient may have anticipated. Recipients are no longer allowed to see the donor body before the event. The psychological after-effects of such meetings as did occur in the early days were devastating. *Most* people preferred not to know. Still, the suicide rate among those deemed suitable was far higher than most concerned individuals felt was within reason.

Catherine was supremely adaptable. Of the eight bodies which had hosted her brain since the death of her original one 185 years before, some had lasted far longer than others but none had failed her immediately. The first was the shortest, five years; the second had been twelve, but the third, that had lasted for 37 years. After that some were better and some not as good, but one thing they all had in common; no matter how long the association, eventually they all moved to evict their tenant.

That in itself was not unusual. Though the rate of permanent acceptance was quite high now, there was still a significant number of initial rejections. Some of these patients were not capable of surviving a second operation, but of those that did, the vast majority never rejected again. Aside from Catherine, there was only one other known survivor of a third transplant. He had died of natural causes several years before

and the autopsy had shown that he and his host were still fully integrated. But Catherine van Dyck was unique. Not only had she survived eight such transplants, she was the oldest living human being in the world, still active in mind and fluid in character, without a trace of senility or the psychosis which plagued the lives of the less fortunate of her sort. Counting the original 25 years of her life before the chain of surgery which bound her to the Harvard medical monarch, she was 210 and sometimes, privately, she felt every day of it.

She was unique in another respect too. She was the first. The first human, that is, to come through the operation cognizant, functional, and alive more than two weeks later. She was a living legend (Harvard kept saying it was the best kind). The world at large seemed to consider her immortal and sometime around the date of her fourth transplant (her fifth life as she preferred to put it) she had been dubbed by some unknown member of the press as Catherine the Great and it had stuck. She had lived through roughly four generations and each one had felt compelled to contribute a biography or two to the myth growing in her wake. They were factually pretty accurate and all quite nearly the same.

They were also all wrong. When the time came she would leave them the story and dare them to believe it. They would probably prefer the myth. Myths are comfortable and pliable and entertaining and not filled with the dreams of the walking dead whose lives she shared through the use of their bodies. It was not a horror. It was an obligation she felt to the gift of the donor...that a person may still live as long as they are remembered. Catherine preserved all of them within her. She sought out as much as she could learn about each of the unknowns who had given her their blessing in the form of their bodies and tried to incorporate into her life at least one of the goals they had striven for. It was a private thing. She had never told anyone, but she swore that in the end, as long as she was remembered, they would be. They were wrong about other things too. Things she had forgotten over all the years. Things which were strangely bidden to mind lately. Things she would not forget again.

She thought about a great deal of this as John Harvard's car sensed its way to the destination he had punched into the dash panel and she sat in the back, chatting and playing cards over the small, retractable table with her three companions. She thought about it, but she talked about the initial shock of waking up to a new beginning in a hospital bed, of doing weeks of double takes when you faced a stranger in the mirror, of reaching too high for some things or too low for others, of going shopping and trying to squeeze into something three sizes too small, learning to modulate a new voice, bouts with the psychiatrists and physical therapists, and getting used to the looks on the faces of your friends when they don't recognize you—all the things the average brain transplant patient is likely to have to go through. But not the things that were hers and hers alone.



HE DINNER PARTY was a press conference in disguise. Out of disguise, it was the sort of thing the influential people in the business of fund raising did to court the favors of the sort of money which found benefit events tacky. Money in general was never discussed, but all the right people were nestled together in a warm and nurturing environment with good food and fine wine and things were allowed to develop naturally. Lluella Harvard was imbued with an absolute genius for gathering the manna of the rich for the benefit of her various projects. Thus she was the principal fund raiser for, among other things, the Novak Memorial Hospital which was sometimes referred to as the court of Catherine the Great. She was also John Harvard's former wife.

Lluella Harvard was like a natural force, compelling and potentially devastating. She could be no more ignored than the tide, nor could she be contained or controlled any more successfully. But she was far from arbitrary. She carried on her life with an elegant calculation firmly bound to her vested interests. What benefited Lluella benefited a great many things.

There was no animosity in the separation of one of the world's more notable couples. After 29 years of marriage, they had simply had no time for each other any longer. They were both too thoroughly bound up in their own purposeful directions and pursuing them independently seemed finally the best course. After 8 years of separation they were still cordial and friendly, which is about as much as they had been for a fair part of the marriage.

Lluella was a close to Catherine as anyone had been over the years till Sara came along. Lluella had recognized very early, that there was something quite special between Cat, and her little daughter. Catherine she found to be somewhat more enigmatic than most people, but how can one really expect to be able to read someone who has lived so long, and in such a way. She knew Catherine kept her own counsel far more intimately than John Harvard was willing to recognize. He knew her reactions and reflexes and attitudes and opinions far better than anyone (with the exception of Sara) but he did not look for anything beyond what she was willing to admit to. Plumbing the depths was Lluella's talent and though she had recognized their existence she had never cared to intrude.

She watched the driveway now, feeling unnaturally fidgety. They were late and she could not restrain herself from looking for the car. It was unlike John. He was almost legendary in his promptness. Catherine, on the other hand, could be having problems. Lluella worried that Catherine might not really have been up to this quite yet after all. But this was an important evening and Cat would be well aware of it. She would probably not have declined the invitation unless there were serious complications. Catherine was hardly a martyr but she had a strong sense of responsibility, along with a certain degree of the theatrical. Her image was carefully tended.

Lluella realized, however, that the fidgets were not purely due to the lack of punctuality. In the first year of her marriage she had watched her husband's craft transform a stately, matriarchal being of slightly Wagnerian dimensions and formidable presence, visually in her late sixties, into a petite, bright-eyed cherub of 30. They were suddenly, disconcertingly, contemporaries. If the knowledge of Catherine the Great in the fullness and power of her maturity was a cogent experience for the mind, this other aspect was subtly

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awesome.

When the car crunched to a stop on the drive, she felt as though she had suddenly come awake and opened the door to greet them herself. Sara and Chris were the first up the steps, giving her a hug and kiss each and John was making pleasantries at her from somewhere behind them. Then he stepped up, took her hand, and planted a kiss on her cheek. When he stepped aside there was a stranger at the foot of the stairs.

Lluella felt the touch of awe once again.

"Cat?"

"Hello, Lluella," an unfamiliar voice said.

"It suits you," she said and felt it was true.

"I'm more than satisfied," Catherine said smiling as she climbed the stairs. "A point here or there that I might want to alter, but nothing of significance."

"Forget it," Harvard grumbled, and Lluella looked from him to Cat and back again trying to weigh the tone of his voice and the look of defiance which flashed into her eyes.

"Who do we have inside?" He asked.

Lluella began to recite the guest list but he amended his request asking for the representatives of the press his former wife would not have neglected to include.

"Thomas Hooker..."

Harvard looked sour.

"You may not like the man—"

"He's an idiot."

"—but he represents the best medical journal in the country."

"I didn't ask you to throw him out," he said holding up his hands. "Who else?"

"Walter Dale, Francois Soufflot—"

"Ah, you've gone international."

She shot him a wifely look and finished, "—and Adella Chambers."

Harvard turned to Catherine soberly, "Watch out for that one."

"I'm hardly a novice at this," Catherine answered, archness in her voice.

"Just watch what you say. I don't want any of this nonsense cropping up in the wrong places. And this is the first wrong place."

He began to turn but Lluella caught him with a look.

"Are you two at war?"

Harvard cleared his throat.

"If so I want you to bottle it up and cork it tight right here. There are to be no skirmishes in my dining room. Is that perfectly clear? And I mean both of you!"

"It's alright mother, really," Sara said. "They are both rational adults, I hardly think they would be that foolish."

"They have been that foolish already," Lluella said. "They let me see it. I don't want anyone else to."

"It has nothing to do with John," Catherine said, "except at the point where he refuses to accept what I have said to him. He is the one who insists upon making an issue of it."

Harvard was standing with arms folded, looking stern.

"Allow me to acquaint you with what she is capable of saying this evening, so you'll recognize it in time to head it off—if necessary," he emphasized in Catherine's direction.

"Cat has arbitrarily come to the conclusion that this is the last go-around for her. Her favorite phrase these days is 'the cat is in her ninth life.' This is her last body she tells me...no more."

"That sounds disturbingly suicidal, Cat," Lluella said.

"What does the world expect of me?"

"Why...nothing."

"That, unfortunately, is what I thought."

Catherine turned and looked silently out across the lawn. Luella felt rebuffed. She had never known Catherine to be deliberately rude.

"If she intends to do herself in," Harvard continued, "it won't be a quiet dignified departure. She's begun smoking, drinking when I can't catch her; the other day she took the car out, all alone I might add, and went swimming at the beach, and she has a whole new vocabulary to go with her new face. She also has an attitude problem these days."

"Which is directly related to your own, doctor," Catherine said turning slowly. "It's my business. It's my life, and I know what I know. I'm not going to kill myself, I'm going to live my life. I can and I will...this time...and when I'm done there will be no need to go on to another. Excuse me," and she passed into the house.

Lluella realized she looked startled, standing there wide-eyed with her hand covering her mouth like that. Sara looked much the same only a little less dramatic with her hands in her pockets. Chris was frowning and John glowered darkly.

"Since leaving the hospital she seems to have developed this death wish," he said somberly. "It galls me, it really does. That she would throw away all the work that has been dedicated to her existence over the years, all the research done in her name, all the refinement of techniques developed to make each new phase of her life better, fuller, healthier. I'm not discounting the benefits that have accrued to mankind in general, but she has been for so long the motivation, the inspiration, the most truly compelling factor in all this—to chuck it all now—it seems downright ungrateful. Look at the years she was given."

"Perhaps those years are becoming too much," Chris said.

"No," he shook his head, "she's clear as a bell. She's basically unencumbered by the burdens of old age."

"I was thinking more in terms of just plain being tired," Christ said.

Harvard gave a short chuckle. "She suddenly seems to have far more energy than is good for her. And that is what's so puzzling. This sudden lust for life seems at odds with her refusal even to consider another transplant operation."

"Well, look at it this way," Chris said, trying to move things toward the door, "It is only a few months since the last operation. Apparently she has taken well to the new body, she feels good, better than she has in several lives, and she is a little euphoric. But 20 years from now..."

"I hope so," Harvard said and turned to go in.

But Lluella was not so sure. Look deeper, John, she thought; there is more to this. She wasn't sure what but she knew it was there. The woman at the bottom of the stairs had not simply looked like a stranger, she was one.

Down in the large, pastel-lit livingroom, Catherine was making the rounds introducing herself to everyone, acquaintances and strangers alike. Lithe, tall, and attractive, she was supremely self-possessed and charming.

Sara and Chris were immediately swallowed up by a small knot of family friends. Lluella stood beside her ex-husband and watched Catherine move about the room, a smile sparkling across her face, a few inaudible words passed to someone who either looked pleased or startled. Lluella searched Cat's eyes for some clue, some hint of the secrets that eyes sometimes tease one with while the words speak of other things. But Catherine was playing a role just now and was not ready to give up anything. John was watching too but Lluella knew his signals would be different. She wished she knew what she was thinking so she could tell him to be alert to something he would normally not search out, but she could not get a firm hold on the ideas.

Half a dozen mechanical servers drifted gracefully through the assembled guests, offering up chilled champagne and *hors d'oeuvres*. As one of the sleek silver and pink gadgets floated by, tidbit-laden and tempting, Catherine helped herself and took up a glass of champagne with which she toasted the man she was speaking to.

Harvard muttered something and moved to relieve her of the glass but Lluella caught his arm. "Why bother?"

"But she knows better than that!"

"Precisely. So what's the point? She can't lose, John. If you start a scene she may not tear you to pieces, but Chambers certainly will. Besides," she removed her hand, "I think she knows exactly what she is doing."

"Whose side are you on?"

"No one's, except maybe my own. In all my life she is the only person besides you who did not play politics with me. I respect her. She is also the only person I can't manipulate in some way. Oh, don't look so surprised, of course I know I do that! I have to admit I find Cat more than a little awesome, especially when I look at that young, near-child of a body and think of the mind inside. Who am I to presume to dictate anything to her?"

"Well I am her doctor!"

"And that's all you are. Has it ever occurred to you that maybe the family has been playing God with that woman for too long?"

Harvard looked at Lluella intensely for a moment. Then his gaze slowly began to turn introspective and finally turned away. "Not till now," he said quietly.

"Leave her be, John. She knows what she is about. She must. If the experience of life counts for anything, and we obviously believe it does or we would not work so hard to prolong hers, then what can we possibly have to say to her that she doesn't already know?"

"Not a goddamn blessed thing," he muttered as a pink and silver server waltzed within reach and Harvard scooped up two glasses, handing one to Lluella. The rims chimed delicately above the hum of conversation and as Lluella sipped hers, Harvard turned to look across the room, caught Catherine's eye and raised his glass to her. She responded in kind and as he tasted the chill of his own he was at least

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reassured somewhat by the fact that she had not smiled at him.

Chris was the only member of the family who did not feel the need to scrutinize Catherine carefully at dinner. She was mercurial; exuberant at one moment and serenely serious at the next, politely fielding questions and thoroughly honest in her responses. But she volunteered nothing. She was herself searching for something. She examined the assembly as carefully as the Harvard clan observed her.

In the livingroom once again she was immediately laid siege to by the Hooker-Dale-Soufflot-Chambers contingent. Adella Chambers was by far the most irrepressible and, though she was noted for astute judgements and an admirable lack of bias, Catherine found her totally impossible to like. It was eventually all she could do to remain civil. Though none of the others offended her overtly, she was struck by the uniform quality of their questions, or rather the lack of quality. Trivia. She felt her ire rising and let it. Chambers seemed to take notice but did not change her tack. Catherine did not care. She was earnest if somewhat cool in her answers, a departure from the pleasant though occasionally grandiose image the world had come to form of her. Catherine watched Chambers take careful note of the two cigarettes and the brandy and did not laugh at the occasional bit of humor Hooker would employ to try to lighten the mood. Finally, when Adella Chambers asked the only question of the evening with any potential, Catherine saw a place to sow the first seed.

"And what grand project does Cat van Dyck have planned for this reincarnation?"

Catherine leaned back against the sofa and saw John Harvard standing silent and sober behind Walter Dale. He would say nothing and Catherine returned her gaze to Miss Chambers' face and spoke in quiet deliberation which matched perfectly the expression on her face.

"I'm thinking of becoming a lawyer."

A ripple of laughter from Hooker-Dale-Soufflot. "That's a formidable undertaking. Whatever for?"

"Because I am a lawyer. It's what I was in the first life and it is what Kate Wall was."

Chambers arched an eyebrow and smiled indulgently. "Really? And who in the world is Kate Wall?"

Slowly Catherine slid her right arm from the back of the couch and extended it before her, fingers spread, palm almost touching the journalist's nose. She held it there rigidly till the hand began to tremble with the effort she forced into it. Then she slowly drew back, balling it into a fist which she laid in her lap. She had the woman's eyes the instant her hand moved and she held them with the powerful force of her own. Chambers glared back in defiance at the affront to her dignity. But Catherine assailed her with all the awful honesty she could pack into a look and Adella Chambers retreated with a shudder. She looked down at her pad and wrote nothing. The others were silent and bewildered.

"I see," Chambers said at last, trying to shake herself back to life, "That is a noble aim. I hope you are up to it. Tell me, are you still planning to attend the opening of the ballet season in—"

"I have a question for you," Catherine said bluntly, her face carved of alabaster.

"Of course."

"What does the world expect of me?"

Chambers seemed satisfactorily flustered.

"Why...nothing."

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Catherine nodded slowly. "That, unfortunately, is what I thought." And she stood and walked away.

They all turned to watch her leave and in the next instant her seat on the sofa was filled with the smiling person of John Harvard. Chambers looked at him, confusion still clouding her eyes.

"A little insight can be a devastating thing, can't it young lady?"

It was Hooker who responded. "I thought no one was supposed to know who their donors were."

"They aren't. But I have a suspicion she always does, somehow."

Adella Chambers was watching Catherine's back withdrawing across the room.

"How does she stay sane?" she murmured. "I could never—"

"She isn't Catherine the Great for nothing."

"Is she serious about this lawyer business?" Dale asked.

"I hope not," Harvard said, "but—who knows."

"I hope she is," said Adella Chambers folding her pad and rising to go.

"Adella!" Dale said. "You're not leaving! The night is still young."

"It has suddenly gotten very old for me. Besides, I have something important to do at home. I have half a dozen biographies to burn."

She walked away to another chorus of chuckles and in short order the English language was abandoned and the conversation continued in "Medicalese."

**C**ATHERINE SAT IN LLUELLA'S POWDER ROOM and communed with her image in the mirror for the hundred and first time.

"Too bad," she said to herself, "They just aren't ready." She stared at her own eyes in silence for another minute, then intoned in a low voice:

*"The time has come," the Walrus said,*

*"To speak of many things;*

*Of shoes and ships and sealing wax*

*And cabbages and Kings... .*

but not," she said jabbing the right index finger at the one which rushed forth to meet it at the glass, "why the sea is Boiling Hot! and Certainly not what you had on your mind to tell them. So...you lose. You lose...I lose...we lose..."

She placed the palms of both hands on the mirror parenthesizing the face.

"So make the best of it," the mouth in the mirror reflected in reverse.

Catherine shook her head slowly, looking down at her cigarette and continuing to ignore it. "Asses." Then back to her reflection with a little half smile. "So what else is new?"

When she got tired of waiting for the image in the mirror to answer she crushed out the butt and left the dressing room.

Chris was waiting for her, leaning against the wall smiling beautifully. In one hand he held a bottle of champagne and in the other a bouquet of tulip glasses. He held the trix up before his face and studied them a second.

"They aren't the right shape I suppose, but they are all I could swipe from the pantry and I doubt that the wine will care." He smiled again. "Madam desires the pleasure of your company on the veranda. Shall we?" he said, offering his arm.

"Why not," she said, but she took the bottle from his hand

"My great, great-grandfather loved you. He wanted you to live forever."

"No! Never! No one lives forever."

instead and led the way.

Partially roofed and flagstone floored, the veranda embraced two sides of the huge old house. At the back it was open and balcony-like, though it was on the ground floor, for the lawn sloped away close beyond it at a spectacular angle. The lake, far below and kilometers away, caught the light the moon gave up and glowed in the distance, ringed by a bodyguard of low hills black with forest. It was one of the few such views left and Catherine knew it well. Three generations of Harvards had owned this land. She felt they were survivors together but during the day it was apparent where encroachment was beginning. Within a few years, she thought...but didn't finish it. This too was one more of the signs which marked the way for her.

Two torches flickered softly in the light breeze. Chris set the glasses on the table where Sara sat and proceeded to open the bottle. The cork was launched to the moon and the glasses filled before anyone said anything.

"To what?" Catherine asked.

"Let's see," Chris said, seating himself across from Sara.

"How about law school?" Sara said, glass uplifted.

"Or prudence, maybe?" Catherine said. "I saw you, lurking over by the fireplace."

"My wife doesn't lurk," Chris said. "She's more elegant than that."

"True."

"Are you serious? About law school I mean?"

"Yes."

"It's a lot of work, Kitty. Do you honestly think you are up to it?"

"Yes."

"I can't argue with you about it," he said, "but I'm sure there is someone else who will."

"Oh, I have no doubt about that. But it is something I have to do."

"If nothing else, it made a smashing impact with the press," Sara said. "Adella Chambers may never be the same. You hit her with rather a low blow."

"I hope she gets home and dreams about it all night...and for a long time after! It rolled off all the others like water off ducks, but with her I think I sank a barb. If it plagues her long enough maybe she will begin to understand there are more important things in heaven and earth than whether I open the ballet season or what I had for dinner the night the bandages came off. If she can see where I am coming from then maybe she will eventually be of some use to me."

"Use," Sara said.

"Yes, use. I have something to say but they they are obviously not ready to hear it. Even my doctor does not believe me. And he, of all people, should want to."

"And exactly where, to use the archaic vernacular, are you coming from?" Chris asked.

"From a place very far away. From a place that died over 180 years ago. From where I call myself Cat and think myself

Catherine, and know why. From across a void which has felt like eternity on the dark side of the moon. From all the lonely corners of the places my mind goes to when I'm alone in my bed. From all the people I have tried to be because I was no longer myself, and they were simply no longer."

"To where?" Sara said. "Back to the beginning?"

"To where I left off."

"What makes you think you can recapture that?"

"The fact that I have."

"How?"

"You and your father need to learn to trust a little more in instinct."

"Something must tell you."

"I think Kitty knows herself well enough to determine what she is and is not capable of," Chris said. He felt chilly but it was nothing his jacket could remedy. He wanted to change the subject.

"Maybe you should have gone to Med School, babe," Sara said to him. "Kitty might prefer someone who believes in her every intuition just because she is unique."

"I'm unique alright. Has it ever occurred to you that I am the world's most persistent failure? I am uniquely suited to successive brain transplants and yet I have been uniquely plagued by successive rejections. It has become a game, called keep Catherine alive. So I'm continually supplied with new bodies, new leases on life. Is that success?"

"Why not," Sara said, "Look how long you have been here. They must be doing something right."

"Ah, but therein lies the fallacy. You miss the point as everyone does. If the transplant rejects, does that not constitute a failure? I'm not saying whose. It isn't a matter of blame. We have forgotten what we started out to do."

"So we succeed in keeping the Cat alive. Wonderfull! But was that ever the point? There is no one left alive who remembers the original intention but me. What about the motivation?"

"My great, great-grandfather loved you. He wanted you to live forever."

"No!" Catherine pounced on the word. "Never! No one lives forever. The universe won't last forever. All John wanted was to live out his life with me...for me to live out mine with him. The first operation was a gamble. The second was desperation. By the third the game had begun. But he never planned the relay race we have run since he passed by care along to Paul. That third operation was a changing of the guard. And all the generations of Harvards that have followed have faithfully passed the baton, but somewhere along the way they lost sight of the finish line. And I sit like a human vulture waiting for the death of a brain to leave an otherwise healthy body for me to consume and pass off."

"Why? Because it has always been a *medical* problem, something that surgery could fix, over and over. They all got caught in it, that need to keep fixing. They forgot the incentive and so did I, till the last few weeks."

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She turned to the rail and looked out across the valley, to the moonglow crisp and cold and diamond bright on the lake below. Neither Chris nor Sara could find words. Spellbound by the intensity of the voice and the gnawing hint of the rightness of the point of view, they say mute and waited to be led where she would have them go. They felt the presence of her logic but could not yet see its shape.

**T**HE ANGLE OF CATHERINE'S gently torchlit moonlit face presenting itself to Sara was quiet in its expression, far away, as though seeing back through the whole measure of her time. She seemed to have forgotten they were there. But when she spoke again, to the moon and the night, her voice was low and soft and perfect:

*Grow old along with me,  
The best is yet to be,  
The last of life for which the first was made.*

"Elizabeth Browning," Sara said.

"And John Harvard...the first one. It was all he wanted. All we ever wanted. Just to grow old together. He couldn't stand the thought that he, almost 20 years my senior, might outlive me, and he found he had the power to keep me with him, and I let him. I had nothing to lose. We never expected the fourth life to last so long, but the state-of-the-art was improving and I had a good donor.

"So John grew older and passed beyond our little dream..."

"And you stayed young," Sara said, feeling lost now on the dark side of her moon.

"If you believe that you are hopeless, just like the rest of them," she said with a newly alert coolness in her voice. Then in a simpering, mocking sneer, "Catherine is ageless.

"Bullshit! I'm over two hundred years old and I've hit middle age as often as I have 30." She turned and gestured in the air with her hand. "Five times I have been through menopause. Believe me, once is enough!"

Sara felt a quick trickle of a smile and submerged the urge to giggle. Once again she wondered if Catherine was playing games. What she said was, "Dad says you have a death wish. I really can't tell. Do you?"

"Maybe. I do not have a wish to continue *ad infinitum*. If that qualifies, then so be it. But it is a moot point. There will be no more operations."

"Then I have to agree with Doc," Chris said, "It sounds like a death wish. The next time you reject—"

"I won't."

"How can you be so sure?" Sara said.

"After all this time how can I not be sure?"

"Do you really believe this nine lives business?"

"Oh, I don't know. It is just one of a whole ream of things I can not quite ignore, but it is unquestionably the least important. Your father finds it a convenient point of protest, that's all. He has the family affliction, and if this night doesn't purge you of it then I shall quit trying and quietly keep my peace.

"It is an out and out perversity, but over all these generations the Harvard family's reputation has been based on the unattainable. Your father has achieved what none of the others could do. Yet he sees as he has been conditioned to in this one narrow area. All their failures have brought the project success and his own success he can not see as anything but the ultimate failure, so he refuses to believe it."

She was suddenly adamant, almost angry.

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"I will not be forced to consent to transplant! And they can not take me from this body if it does not first move to give me up!"

"I will die! In my own good time and however nature dictates. I am here to stay this time." Her eyes were dark and intense and her voice was passionate. "My life has been given back to me...exactly where I left it. She died within hours of the age at which I died the first time. Our dates of birth are the same, our chosen professions are the same, height, weight, coloring..." Catherine was fishing in her evening bag as she spoke. Sara watched her withdraw a folded envelope and reach for it when Catherine handed it to her.

"I brought that for the press but found the time not to be right. I was going to show it to your father but he does not want to know any more than the rest of them. But you have to, both of you. We are going to be walking this road together and you must not only know where it leads but where it comes from."

In the envelope was a sheet of paper with two parallel lists under the names of Catherine and her latest donor. It expanded upon the similarities between the two women in extensive detail, and the comparison was uncannily striking. But what caught and held Sara was the photograph; old and cracked and brittle, fading in color, it held its image in an ancient grip. Sara handed the paper to Chris and took the photograph to the illumination of a torch.

"I wasn't sure I still had it," Catherine said. "It took me a long time to find it. That is your great, great-grandfather."

"Yes, I know. I think I must have seen a thousand pictures of him in all kinds of places."

"After the operation, when he was suddenly a genius and I was a miracle the whole world wanted to see us, to know about us. Pictures, interviews, stories, books...rumors. But before that, when he was only brilliant and I was a new lawyer with a fresh, crisp degree, considering becoming the stepmother of his 18 year old son...who cared?"

"Paul took that...six weeks before the first operation. I had just turned 25.

"Sara do you understand me?"

But Sara had nothing to say. She was staring at the young woman standing close beside the older man. A man she had seen in the family album and in her history and medical books. A man who had passed much of his looks down to the male heirs of his family but who remained distinct and always recognizable. Yes, she had seen that face before, often. And the woman she had seen too, but only once. She searched the somber eyes below the straight, full cascade of faded auburn bangs, looking for a sign, an assurance which she found in flesh and blood in Catherine when she raised her head and fixed upon the living face. Chris stood by his wife, peering over her shoulder. Sara's eyes trod the road from face to photo and back several times before Catherine caught and held them with her own. They were her own. They always had been. And Sara could not deny it, though she tried.

"I have the thread again," Catherine said in a quiet voice. "And the knot is tied. It will not come undone again. I have a life to finish."

Chris looked at the ancient picture and wondered about all the things that can happen to a life in transit...from light to light...on the dark side of the moon.

And Sara nodded and knew it was *right*...even if it wasn't true.

# The Ark Of James Carlyle

Cherry Wilder

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**O**N THE NINETY-FIRST DAY of his Met. duty Carlyle stepped out of the hut and gazed desperately at the cloudless sky. There were no quogs to meet him on the platform; the oily purple sea sucked gently at the wooden piles; his instruments had assured him there was a light westerly breeze. His delusion persisted and he had nothing to support it... not even the tangible evidence of an aching bunion. He did not dare call the station. How would he begin?

"Something tells me..."

He decided to walk round the island but he found an ancient quog, the one he called the Chief, squatting at the foot of the ladder. He beckoned him on to the platform. The quogs were cryptorchids so for all he knew perhaps this was a Chieftainess; it was difficult to tell.

When he had first taken up his duty, before the boat brought him to the island, he had seen Mary Long, a young anthropologist who had tagged along with the landing party to the plateau, sexing a herd of quogs. She walked among them, picking the creatures up and solemnly examining their genital pouches. She was engrossed in her work; twenty or





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Twenty or thirty quogs surrounded her and gently stripped off every stitch of her clothing before Carlyle or the other men could intervene.

thirty quogs surrounded her and gently stripped off every stitch of her clothing before Carlyle or the other men could intervene. They sat round her and stared, their luminous eyes full of innocent curiosity.

Not a great deal of work had been done on quogs; they had been described as small land mammals, semi-erect bipeds, modified baboons. They were docile; certainly, and capable of performing many tasks; but they were also ugly, elusive and rank-smelling. Their odour had already ceased to bother Carlyle but he noticed that the quogs still kept upwind of him. He found himself describing them differently: they were like trolls, like squatting goblins, like little old men. At night he listened for one of their rare sounds, the qwok-qwok-qwok, hardly vocalised, that had given them their name.

The Chief, who was a big fellow, fully three feet tall, scrambled nimbly on to the platform.

"Where are the others?" asked Carlyle.

Every other day the platform had been lined with quogs who gave him berries, limpets, burrowing shrimps, in exchange for bacon cubes. He had tried them with everything he had: orange juice, vegetables, vitamins, but they like the bacon best. Now the Chief tried to explain their absence. He could be heard only by cupping his long plush hands before his tiny slit of mouth to amplify the sound, the way Carlyle made owl-hoot as a boy.

"Mee-haw," boomed the Chief faintly.

At first Carlyle did not understand. The mee-haw was a tree; in fact it was the only tree. The vegetation on AC14 was low, luxuriant and undistinguished except for the mee-haw trees, which reared up, with straight trunk and spreading crown of leafy branches, one hundred metres and more above the bushy islands in the still, purple sea. The timber, resembling balsa, was particularly easy to work. The platform on which Carlyle had his Met. hut was made entirely of the single mee-haw tree that had grown on the tiny island. The quogs had wept to see it fall down. Carlyle had had the uneasy notion that the mee-haw tree might be sacred to them.

Now the Chief pointed to the island; Carlyle was shaken again by his crazy premonition.

"Come on," he said.

He climbed down from the platform and followed the Chief up the brush-covered slope. All the quogs on the island, about thirty of them forming one family group, were huddled together on the broad stump of the mee-haw tree.

"Why?" asked Carlyle. "Why?"

The Chief cupped his hands and answered with a third quog word.

Carlyle strained to catch it.

"Aw-kee?"

The quogs on the stump waved their fingers; this was a way of laughing. To Carlyle's surprise they all began to vocalise, even the babies, pale blue and completely hairless, cupping their tiney hands. "Aw-kee" was the nearest he could get to it.

"What's that?" asked Carlyle.

He already knew. He went into a mad pantomime, begging the quogs for confirmation, then he ran back to the Met. hut. He called the satellite without a glance at his instruments. He announced firmly:

"There's going to be a flood."

The receiver crackled. What were his readings?

"The quogs told me," said Carlyle.

The crackle became indignant. Reading please. Carlyle turned hopelessly towards his instrument panel and his heart pounded. The barometer had dropped an unbelievable three inches and was still falling. The wind had swung round to the south. The room became dark as he completed his report and huge drops of rain began a tattoo on the roof of the Met. hut.

He ran out on to the platform. The sky was a dome of blue-black cloud above a darkening sea; the waves flashed emerald and purple-black and broke in iridescent foam upon the shore. The word for it, Carlyle decided, was unearthly. Already drenched to the skin he cowered in the doorway of the hut. He was worried about the quogs; he guessed that their instinct to seek higher ground would keep them huddled on the mee-haw stump. The fragile shelters where they slept and did their weaving would be no protection against this rain. A picture of the quogs twisting their endless ropes from native flax lingered in his mind. He wished, idly, that the mee-haw tree had not been cut down.

Carlyle gave a cry: "The tree!"

He peered out into the downpour, staring up at the dark centre of the island where the mighty mee-haw tree had stood, ready to shelter the quogs in its dense foliage. They made ropes... probably sent up a young male to loop slings over the branches, then the whole tribe went up.

There was a splashing and scrabbling at the foot of the platform. Carlyle knelt down and saw the Chier, already swimming awkwardly; the water had risen three feet in twenty minutes. The rain was a blinding cataract; a man who lay on his back would drown, thought Carlyle. He dragged the old quog aboard and bundled him into the hut. They sat gasping, the water pouring from the quog's grizzled hide, from Carlyle's coveralls.

"How far?" gasped Carlyle. "How high does the water...?" He gestured with a horizontal hand, staring into the Chief's bulging dark eyes.

Carlyle was suddenly aware of an earlier moment. When the mee-haw tree came down... the day the quogs wept... he and Ensign Weiss noticed marks on its great trunk, a series of wavy bands, between three and four metres from the lowest branches... more than eighty metres from the ground. Carlyle understood, with another thump of fear... water marks. The water would rise until only the mee-haw tops rose like islands out of the purple sea. The only high ground on the entire planetoid was the plateau where his expedition had touched down briefly, far to the north. It had a large quog population... and no mee-haw trees.

The Chief touched Carlyle's knee gently with the tip of his prehensile tail.

"Sure," Carlyle. "Sure. We have a real problem here, old buddy."

He was calculating... One life-raft, inflatable, fully provisioned and powered, capacity six humans. All he had to do was launch the thing. And figure out some way of transporting thirty quogs to the plateau. The receiver gave his call signal but Carlyle paid no attention. He rushed out on to the platform again, into the deluge, and saw with alarm that the water was up to the cross supports. The scrap of beach and the lowest rank of undergrowth were already submerged. Sea and sky were joined in a blue-black curtain of moisture. Suddenly Carlyle gave a triumphant cry that brought the old quog scuttling to his side; he had realised that they were standing upon a raft.

He explained it to the Chief as he dug out the axe. The tribe must come aboard now, pronto; when the water rose he would knock out the supports of the platform and they would be launched. The wind and the current were driving towards the plateau... Maybe they could use the power pack of his own inflatable boat.

"come on!" he shouted. "We have to get them aboard!"

The Chief had been dancing and shivering at Carlyle's side, stretching out his arms to the island. He pointed through the rain and Carlyle saw that the quogs were coming.

It made sense of course; the platform was a little higher than the top of the island. They came swarming through the bushes and flung themselves gamely into the water. Their awkward quog-paddle was very efficient; the first wave—pregnant females and mothers with babies on their backs—was already nosing towards the supports. The turbid water was alight with their bulbous eyes. Carlyle knelt down beside the Chief and began to heave the dripping creatures aboard. More than once Carlyle saw a big quog dive and drag up a half-drowned cub. The oldest animals took it pretty hard, they fought to stay on land; but the younger ones thrust them brutally into the water. All along the platform in the plunging rain the rest of the tribe were gently dancing and stamping, reaching out their arms in encouragement to those still in the water.

As the last of them were dragged aboard Carlyle herded them into the Met. hut and went over the side with the axe. The Chief and four husky off-siders watched him wallowing in water up to his neck and hammering with the back of the axe-head at one of the supports. The mee-haw piles had been embedded in heavy silt to a depth of two metres. Carlyle reckoned he could slide the tops of the piles out of the groove cut for them in the platform. But the first pile moved inward with a lurch the moment he hit it; he saw that the silt was swirling away in clouds as the water rose. He was treading water now, catching an occasional foothold on a rock. He moved under the platform, beat at the pile with the axe-head, then heaved it outward with all his strength.

As the silt let go its hold the pile swung upwards in the water and the platform sagged down at one corner. Instantly two quogs were in the water grasping the mee-haw pile and using it to restore balance. Carlyle swam to the diagonal under the far corner of the hut and knocked it out like a loose tooth; two more quogs hove up out of the rain and balanced the platform. Carlyle knocked out the remaining leeward pile and felt the whole structure buckle and shift. He yelled to the quogs and scrambled back on to the platform. The decking heaved about crazily. The last pile on the seaward side gave

way. Carlyle watched his two pairs of assistants climb expertly inboard and tapped the loose piles free of their grooves as they rode up on the surface of the flood. Leaning down he caught hold of one long pile as it clung to the side of the platform and shoved off from the island. The quogs on deck gathered to help him, bracing their leathery underbellies against the pole; the platform shuddered, then settled gerily. The wind was rising and a strong current ran to the north. The mee-haw raft floated free upon the waste of waters.

**C**ARLYLE AND HIS DECK-HANDS carefully drew in their improvised oar; he felt an extraordinary sense of well-being as they clustered around his knees. The rain had slackened but they still pressed forward into a wall of water. A gleam of violet penetrating the low ceiling of black cloud showed that the Star was shining. Carlyle glanced down at the Chief, who blinked solemnly through the rain. He remembered that he must answer the call signal and led the way into the Met. hut.

The quogs had packed themselves in snugly under the big plastic dome. Carlyle couldn't think of any species who could carry off the situation better. Humans? Monkeys? Bedlam and filth. Okay, the quogs were a spooky lot, and the smell, *en masse*, was like camphorated garlic, but there were times when he appreciated their stillness, the way they organised themselves. He lifted aside a tiny plue paw, resting on the communicator, and called the satellite.

The signal was faint.

"Readings..."

He gave the readings.

"We observe dense cloud," pipped the signal. "Evaluate."

Carlyle switched over to voice, although he didn't like talking to the computer. He made a report. The androgynous voice snapped.

"Evacuate. Use liferaft."

Carlyle said: "The emergency is way past that point. I have evacuated the native population."

The quogs were vocalising gently in the background... qwok-qwok-qwok... There was static, the voice signal was faint.

"Follow emergency procedures. No record... population. Save... self... data."

Carlyle repeated stolidly: "Evacuating with quogs."

"Follow... procedures. No deviation... losing contact."

Carlyle said coarsely: "Screw yourself tin-brain. Give me emergency voice contact." He slammed the red button and Garrett answered.

"Jim... Jim? What the hell is going on down there?"

Carlyle gave his report all over again; the reply was broken and distant.

"We're losing signal." Garrett was worried. "What in blazes are you doing with those quogs?"

"Evacuating them. The island is submerged by now I guess."

"But why? This is no time... Tough luck... the quogs. No ethnological value... plenty more..."

"Hell!" said Carlyle. "We cut down their tree!"

"Jim!" cried Garrett, with the static closing in. "Take care... crazy raft... Can't allow... deviation emergency procedures." The receiver went dead.

Carlyle felt a surge of panic as if his lifeline had snapped. His morale sagged at the thought of the satellite... warmth, filtered air, human company... He felt his conditioning slipping away. He was on the verge of apophenia, *Weltraum-*

# The Mary Long pointed and began to scream.

## "Quogs! I can see quogs!"

### And the dream swirled away taking Carlyle with it.

*angst*, the fear that grew in interstellar space from contemplating vast distances. He remembered poor Ed Kravetts, a cadet in his year who tried to cover up a bad case of "Yonders." He staggered through his classes on the station red-eyed and queasy; a glance at one of the monitors made him sweat; the checking of an air-lock or a simple space walk left him shocked and pale. To see Kravetts struggling with a quantum equation was to apprehend the void; all the black miles that separated them from the tiny spinning globe of earth, a pin-point of light seen through the wrong end of a telescope.

Carlyle dragged himself back to his own world. "Identify with the place you're in," wasn't that Eva's way of saying it? Eva, E.M., Earth Mother, Commander Magnussen, come beautiful Eva, aid me now. He sent his prayer off into deep space and doled out bacon cubes to all hands before striding out on deck. The rain had really eased off and the cloud was lifting. The mee-haw raft rushed on faster than before. With the current and a rising wind they were making maybe five knots. The Star was down; the brief blue night had settled on AC14.

**T**HE CHIEF LEANED on his knuckle-pads beside Carlyle; they stared together over the wine-dark sea. Low waves came at the raft from the south-west, as the wind swung round. They were long, uncrested hillocks of water, that surged under the mee-haw logs and disappeared into the dusk, rolling in line across the surface of the endless sea.

"Those waves better keep low," said Carlyle. "Does the sea get rough?"

In his ninety-one days of Met. duty he had never seen a choppy sea, never felt a drop of rain, never observed a significant crop in barometric pressure. He made wave-motions with his hands and the Chief replied with "Aw-kee" and some new words. He thought of the sea rising up into roaring crests, high over the raft, huge rollers, hills and valleys where the pink foam boiled. He had to shut his eyes to shake off the nightmare picture of those waves, super-imposed upon the harmless scene he was watching.

"I better get some sleep," Carlyle muttered. He was wet and shaky, his morale still down. The whole project, the solitary Met. duty, was a test of his survival qualities and his potential as a colonist. Perhaps he had blown it with Garrett by evacuating the quogs...He stumbled back into the hut, found a way to his bunk, put on a fresh warm coverall from the thermopack. He didn't dare take any medication in case there was a sudden alert. Most of the quogs were sleeping; he caught the gleam of an eye here and there, the flicker of a blueband. The Chief materialised at the foot of his bunk with two even more ancient creatures, so old that their skin was grey. They stared at Carlyle and clapped their long hands soundlessly. He felt an instant of revulsion...sleeping in a hut crammed with animals, for crissake. Then with a surge of

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weariness and a sense of strange well-being he fell asleep.

...He was wide awake in a dark room with a low ceiling. A range of scents and sounds assailed him; fresh air, woodsmoke, perfume, the waffling roar of a jet refuelling, insects, someone idly keying a moog. Earth. He was on Earth. Carlyle knew that he must be dreaming; he savoured his dream, taking in the outlines of the room. It was night; he was standing beside a window that opened on to a balcony. He glanced down at the thick, unpatterned carpet. A memory stirred. Had he been in this room before? Or was it simply the colour, a rippling mist-green, an earth colour. There was someone at the desk; Carlyle felt himself drift closer.

He peered at the dark figure...A caftan, a long fall of dark hair, he couldn't tell if it was a man or a woman. Yet something in the attitude of the head made him tremble, in his dream. Slowly Eva Magnussen turned until she saw him. She blinked into the darkness of the room, switched off her cassette and removed the earpiece as he had seen her do a thousand times.

"Jim?" her voice was husky, hesitant. "Jim Carlyle?"

"Eva?" In the dream his own voice was muffled.

"Where are you?" she asked. "Is this some kind of experiment?"

"It's my dream," he said. "You know where I am."

"Jim...I can see you."

"I thought of you," he said. "I have a situation going here. My communications are gone. No word from upstairs. Seeing you helps a lot."

"You're not alone," she said. "Who are they?"

"Quogs," he said. "They are great little guys. You might find a short report on them in the file on AC14. Not enough work done on quogs."

"You say you are sleeping?"

"Sure. Eva the sea is purple. Wine-dark sea—"

"Oh, Jim—"

"Don't!" he said. "Eva...Don't cry. Think about what I said. I'm not one of your cadets any more. We could take a colonial posting."

Then as she rose in her chair the dream tilted; he was looking down on the room. He saw the figure of Eva Magnussen, his instructress, Commander Magnussen M.D., specialist in space psychology, rise up from her chair and run forward on the green carpet. He felt an instant of amazement and fear...it was like watching something else...real life...not a dream. He heard Eva cry out across the abyss of space and time:

"Jim...Jim Carlyle...I love you..."

Then the dream vanished in a swirl of colour and scent; he was back in the dark, in the flood, in the crowded Met. hut, with the quogs whistling in anxiety and the Chief tugging his arm.

"Okay!" said Carlyle. "I see what's wrong."

Rain was falling heavily again; the wind had become violent and ripped one of the panels out of the hut. The raft was

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bumping about in the water as the wind tore inside under the dome.

"I'll relax the panels," said Carlyle to the Chief. "I may need your team."

The Chief summoned them up in the eerie violet light of dawn, while the rest of the passengers cowered away from the driving rain.

Carlyle went to work on the expanding ribs holding the panels. The hut began to fold down and the raft settled. Finally he grappled with the damaged panel, but he had the order wrong. He had been too busy providing shelter for the quogs—the torn panel should have been folded down first. He felt a thrill of warning, the eyes of the quogs glowed around him, he shot up a hand and turned sideways. The heavy strut holding one side of the paney broke with a rending crack and came down on his head. Carlyle's last conscious thought was: "I am seeing stars..."

He was out, but not out cold for very long. He groped upwards towards consciousness through a fog of nausea and pain. Words whirled through the aching sunburst of his brain; he strove to move his legs, his hands, his fingers, to wrest open his leaden eyelids. He saw pictures...ragged scraps of film...the island, the satellite, a house in a green field...where? He felt himself, flying, moving, uplifted...lifted by a hundred strong, blue hands. He could see them so clearly through his closed eyelids. Whoever had blue hands...? He remembered and laughed in his pain-fringed dream. "Their hands were blue...and they went to sea...they went to sea in a sieve."

Carlyle opened his eyes. He was on his bunk, the quogs all around him, their saucer eyes alight with concern.

"Concussion," mumbled Carlyle. "Got to take—medication." He could not reach his head but the Chief guided his hand. There was a shallow two-inch cut on his scalp above the left ear and blood had soaked and matted his shaggy crop of hair, known in the service as the colonist's cut or the Buffalo Bill.

"Must take—antibiotic."

Carlyle was heavily conditioned to protect himself against alien bacteria. He fought to stay conscious.

"Hogan..." he whispered to the Chief. "Hogan the Medic. Up there. He can tell me what to take..."

He sank into a confused nightmare of purple microbes and the capsules in his medical pack.

Carlyle's head ached still and he began this comical dream. He was in a cabin on the satellite, lying just above the floor, floating. It was some guy's bedroom, with his locker, pinups, a green video cassette. He heard startled voices and saw two people sitting up in the bunk, clutching the sheet around them.

"Hi Mary!" said Carlyle in his muffled dream voice. "No clothes again!"

"Carlyle...what the hell!"

It was Dick Hogan the Medic, naked too and for some reason frightened.

"Hogan!" cried Carlyle. "You're just the guy I wanted to see."

"Carlyle?" whispered Mary Long, the blonde anthropologist. "Is it you, Jim?"

"Sure," said Carlyle. "I'm dreaming. I do a lot of dreaming down here. I have a concussion, Dick. Little cut on my scalp..."

The two lovers sat there petrified, unable to move. Carlyle laughed and could not make it out. He wasn't about to report Cherry Wilder

them for fraternising.

"Come on now!" He laughed, weakly. "What do I take, Dick? Not functioning too well...what antibiotic...the label...?"

"UCF," said Hogan automatically. "You know that. Orange capsules."

"Thanks..."

Then Mary Long pointed and began to scream.

"Quogs! I can see quogs!"

And the dream swirled away taking Carlyle with it.

A

FTER HE GOT THE CHIEF to feed him the orange capsules he slept long and heavily while his head mended. He woke at night, out on deck, with the raft still moving steadily in the grip of the current. They passed islands—no, not islands, but the tops of mee-haw trees, and on the raft the quogs danced, holding out their hands to the distance, to their brothers in the dripping branches. He woke in the hut and saw a patch of indigo sky with the Star shining down. Carlyle turned to the chief; he was still light-headed.

"Far and Few..." said Carlyle. "How does it go?" He struggled drowsily on to one elbow.

*Few and far, Far and few,*

*Are the lands where the Jumblies live,*

*Their heads were green, and their hands were blue,*

*And they went to sea in a sieve.*

Carlyle was laughing and the quogs waved their fingers.

In his sleep he heard someone calling his name; he woke up and found the Chief, vocalising through his hands.

"Cah-lah-eel!"

"Good try," said Carlyle, flexing his limbs and feeling stronger.

He pointed to the Chief, who slid across his nictitating eyelids in a show of quog bashfulness.

"Tell me your name," urged Carlyle.

The old quog boomed shyly: "Sheef."

Chief. The name Carlyle had given him, though he didn't recall ever calling him that, unless in his delirium. He let it go, puzzled. Either the quogs had no names or they were like cats, who had special sounds they used to communicate with humans.

Carlyle checked his instrument; the stormy conditions were abating. A mee-haw off to port showed a fraction of trunk. The flood waters were beginning to recede. His chronometer told him he had been out of action for three days. The Star hung low in a sky of aquamarine; he saw the plateau dead ahead with the black cliffs rising up sheer. The current was no more than a ripple and the mee-haw raft moved sluggishly through the purple water.

He checked the plateau through his glasses, trying to make out a possible landing-place that he remembered where broken columns of black basalt had made an alien giant's causeway. He saw a disturbance in the water, a line of foam. Before he could register it properly he sensed the anxiety of the quogs, growing into fear. Behind him they huddled and whistled, crowding into the ragged heap of the Met. hut. He stood on the raft, sandwiched between two shock waves...the low wedge of foam moving towards them and the almost palpable fear given off by the quogs.

"What is it?" cried Carlyle.

The Chief, all of them, could give no answer, only this immense welling up of terror. Carlyle gazed at them blankly.

The seal-lizards hesitated, then pressed forward. Their comical mouths opened upon murderous fangs. A tentacle gripped his wrist and pulled gently.

A whale? A giant ray? The Great Horned Toad? He pushed through the crowd and took down a regulation magnum; then as an after-thought he reached down the new Fernlich, the automatic missile carbine. As he feathered its vents he heard the sound, a high vibrant scale of notes, swinging up and down on impossible frequencies. He might have heard it before, far out on the sea at night, so sweet and distant that it could be something he imagined. The quogs writhed in fear and pain, clasping their hands over their round ears, burrowing under the paraphernalia in the hut.

Carlyle rushed out into the waves of strange music. The ripple had divided into ten, dozen pink clumps of foam, approaching swiftly on all sides. He could almost see them now... not too large, dark shapes swimming easily... like seals, maybe, or dolphins, slipping, weaving, gliding, just below the surface of the water. Carlyle squatted on the deck, fascinated. The music thrilled around him, his head sang, he felt dizzy. A young quog, crouched at the doorway of the hut, rolled over and died.

Carlyle sprang up, gasping. With an audible *pop* something reared up out of a patch of foam. A smooth pink bubble... At first he thought incredulously of a child's toy space helmet, then he saw that it was a bubble of foam. The bubble burst and a sleek black head appeared. It did look like a seal but the coat was scaly, black crystalline scales, dark mother-of-pearl, breaking the bluish light into an alien spectrum. The creature was dancing on its tail, waving sleek webs like forepaws, only a few metres from the raft. Then, with a glissando of sound, infinitely sweet, like a peal of electronic bells, a single scaly tentacle whipped out from a curled position below the head and seized the body of the dead quog. The seal-lizard flipped its catch into the air and caught it playfully. There was a flash of teeth, a minor chord, the quog's head was bitten off. A whistle of anguish rose from the burrowing terrified quogs crammed inside the hut. Carlyle shouted at the top of his voice.

The creatures had never heard a human voice. There was an excited humming, a swish of dark bodies passing around and under the raft. A colony of pink bubbles grew to starboard, at a safe distance. The seal-lizards repeated what he recognised vaguely as the tone and pitch of his own voice. They boomed and cawed, bouncing about in the water. Carlyle accepted the invitation; he called again, telling them to clear off. The formation of bubbles began to move closer, tinkling, humming... testing... testing...

With a ringing head Carlyle realised what they were trying to find. The raft was drifting closer to the plateau; he grasped the oar, still lying on deck, and began to drive the clumsy craft along. He would never escape this way before the seal-lizards found his death frequency—the sound which would make this new creature with the harsh, loud voice fall down to be eaten. The seal-lizards moved alongside in formation. The noise was unbearable; Carlyle sang, groaned, shouted aloud. A tentacle, then another, flicked over the

timbers of the raft, plucked at his boots, probed towards the quogs in the hut.

Carlyle dropped his oar and fired the magnum in the air. The seal-lizards hesitated, then pressed forward. A new wave of sound broke over the raft; he screamed and rolled upon the deck, pressing his hands over his ears. Through the mists of agonising sound he saw the seal-lizards at the very edge of the boat. A row of neat, scaly black heads; narrow oval eyes, a structure of nasal beak and leathery appendages like whiskers—even so close they looked amazingly like seals. He could not see how they made their music. Their comical mouths opened upon murderous fangs. A tentacle gripped his wrist and pulled gently.

Roaring aloud to counteract their killing whine Carlyle put one hand to the missile carbine and fired point-blank along the deck. A seal-lizard was blasted into mush. The missile that destroyed it passed on across the sea, then struck and exploded, sending up a column of water, fifty metres away.

There was a moment of utter silence, then the whole band of seal-lizards dived like one creature. It could have been the shock-wave that did it, or the sound of the carbine, or simply the death of one of their number. Rising to his knees Carlyle saw them emerge far beyond the raft swimming in formation, fast and low—a ripple bearing away to the south-west. He caught only a few notes of their music across the dark waters.



HE QUOGS CREPT OUT and surrounded him, helping him to stand. Everyone, Carlyle included, was partially deaf from the encounter. The quogs held their heads sideways and bounced on one leg, like a human bather with water in his ear. Carlyle shook hands with the Chief; it caught on. The whole party, dizzy with relief, shook hands promiscuously.

They were already within the shadow of the plateau: Carlyle and his crew, working the oar, struck a rock or a shoal, then another. They were over the flooded causeway where he had embarked for the island three months ago. He levered the raft in towards a rock platform. The quogs had begun to stamp gently and hold out their hands to the plateau.

One moment there was no sign of life, only the glittering planes of the great stone mesa; the next, every plane and slope was alive with quogs. They spilled over the edge of the plateau in waves, until the black rock was blanketed with brown and grey and tawny fur. A strange noise, stranger even than the music of the seal-lizards, began to rise up from the multitude. They vocalised all together, by tens and hundreds, their weak voices blending into a vast muffled shout, that echoed out over the purple flood tide and reverberated from the chasms of the plateau.

"Cah-lah-ee."

As his own quogs pressed round him proudly, in silence, Carlyle recognised his own name. Then as the shout redoubled: "Cah-lah-ee," he saw himself as a new creature, as the quogs perceived him: the clumsy, loud-voiced,

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white-handed giant of a new species. The dogged Cah-lah-ee, who made a marvellous craft from the looted remains of a mee-haw tree, who overcame the flood, did battle with seal-lizards and brought a whole tribe to safety.

The raft sidled into the platform and a nylon rope fell on the deck. The quogs were so thick that Carlyle had not seen the landing party, Garrett, Hogan, and Weiss. The sight of these men, his own kind, affected him powerfully. His sense of proportion was restored; he smiled and choked up, just as they all did. He felt as if he had returned from some other dimension, not a routine stint on AC14.

"Hey there!" cried Garrett. "Some welcome you got here, Lieutenant."

"Am I glad to see you!" Said Carlyle.

They heaved him ashore; the quogs were whisked off the raft by hundreds of willing hands.

Carlyle turned back to the Chief.

"See the raft is made fast," he said.

The men of the landing party turned back and watched as the Chief and his off-siders tied up to a pillar of rock.

"Everything ship-shape!" said Dick Hogan.

"They know the ropes," said Carlyle.

The party ascended through an aisle of quogs, still hooting his name; Carlyle acknowledged the applause as modestly as he could. He was looking ahead eagerly...Yes, there was the landing module on the plateau, among the bushes and the stony burrows of the upland quogs. He was going upstairs, back to the station. His limbs began to ache in anticipation of a steam bath and a bunk.

"How's the head?" asked Hogan.

"Oh fine," said Carlyle. "It was just a simple concussion."

Garrett turned to him.

"You get it, don't you, Jim? You understand what you've discovered."

"I think so," said Carlyle. "I guess I knew all along. Or when they called out my name...Did you know it was my name?"

"We worked it out." They laughed and looked at Carlyle expectantly, waiting for him to bell the cat.

"The quogs are able to transmit pictures," said Carlyle. "They are natural telesends."

"The first in the Universe," said Garrett.

"There's more to it than that, Max," said Carlyle. "Some kind of group intelligence—"

"They had us on the hop upstairs!" put in Weiss.

"What way?" asked Carlyle.

"Reports of hallucinations," said Garrett. "Weiss here saw you on the raft, Hogan—"

"I saw Hogan," said Carlyle. "Spoke to him. I thought it was a dream."

He and Hogan exchanged glances, straight-faced; no one said a word about Mary Long. The quogs certainly had a trick of embarrassing that girl.

"Communication can extend over vast distances," said Max Garrett.

He was smiling in an odd way; the men were still watching Carlyle closely. He couldn't read much in their faces, no pictures came to him; for a moment he wished they were quogs. Hogan dig him in the ribs.

"You got the prize, boy," he said.

Garrett cleared his throat.

"We had word. Commander Eva Magnussen put in a report. She has also requested a P.I.C. with Lieutenant Carlyle." A Personal Interplanetary Communication: some-Cherry Wilder

thing flashed from Earth to Armstrong Base to a chain of a hundred satellites. It was the spaceman's version of compassionate leave; marriages were contracted, births and deaths announced in this way. "She has requested a colonial posting."

Carlyle smiled foolishly and the men all shook him by the hand.

They were anxious to get him upstairs to sick bay; but Carlyle excused himself and turned aside. He bent down to the nearest quog.

"Where is my friend the Chief?"

There was an immediate response in the scattered groups of quogs returning up the sides of the plateau. A strong impulse, stronger perhaps because of the numbers involved, directed him to a low cave some distance away. He strode over and found the chief, with his wives and children, being regaled with berries and limpets and sweet-bark. He realised that he had been aware for some time that the Chief was in fact a male; he found no difficulty in sexing quogs at a glance. The Chief knew that he was leaving.

"I'll come back after a few days," said Carlyle.

The pair of them stood in a clear space, looking out from the height of the plateau. The three giant causeways in the rock were explained, three great chutes that drained off the deluge of rain from the high ground. The purple sea spread out beneath them; the mee-haw trees marked the submerged islands. In a series of quick superimpositions Carlyle saw the great day when the flood receded altogether; when the Star approached its apogee and the islands became dry land again.

"Yes," he said. "I'll be back to see that."

As he turned to rejoin the landing party Carlyle took in the scene. The three men beside their vehicle, tall visitors in regulation silversuits, and a fourth man, unkempt and hairy, in ragged coveralls, communing at a distance with the members of a new species. The men looked curiously towards Carlyle; their anxiety did not quite diminish as he came closer. The distance between Carlyle and the landing party could not be taken up in a few small steps. They saw tomorrow's man, who by some chance operation of good-will, some accident of understanding, reached forward into new modes of being.

—G—

# THE MASTERS OF SOLITUDE:

## Part Two

Marvin Kaye/Parke Godwin

[Condensed from the forthcoming Doubleday novel.]

### SYNOPSIS

Judith Singer has come out of the unknown, impregnable City to seek the ancient Girdle of Solitude. While time has woven the Girdle into legend, Judith reckons it for a fact and thinks the place called Lishin may hold the key to its location. Garick, a young Shando farmer, loves Judith and warns her against Lishin. "It's a dead place," he tells her.

But Lishin is not dead; there is an evil, shapeless *something* there that nearly kills Judith before she escapes. She tries to return to City, but her year among the unwashed covens has contaminated her with germs that would decimate the sterile City. She is refused entry. Broken and ill, and because she loves Garick, she goes to live with him in Charzen, the seat of the Shando covens.

Their son Singer is born and the years pass happily at first, but always in the background is the old coven resentment of City. Garick becomes a master, one of the inner circle of coven adepts skilled in magic. Singer, though still a small boy, shows a potential for magic surpassing even the greatest masters.

Judith ages rapidly. Her artificially extended lifetime is no longer supported by City technology. She and Garick are drifting apart. He becomes god of the Shando and takes a coven wife, Jenna, who bears him another son, Arin. Judith dies and the embittered young Singer runs away from Charzen.

Now twenty-six, Singer returns and is imprisoned by Garick who has a daring plan: he will wage war against City and force them to open their doors and technology to the backward Uhians. To rally the covens, he chooses Arin, now a good-hearted but shiftless youth of twenty.

The rigorous masters' training charges Arin with new ambition. He selects his companions for the journey. To test himself, he challenges Singer to a duel of psychic power and wins easily: he is ready.

With his small band, the "broken circle," Arin begins his journey north toward the Karli covens where he also hopes to find Shalane, the young master he loved three years ago. Before they reach Karli, Arin has to execute one of his companions to save the others. His responsibility is shaping the careless boy into a lonely man, a man with strange nightmares and stranger voices whispering in his mind...



NCE, AT HIS LESSONS, Singer asked his mother the difference between Shando and Karli.

"Garick's money," she said.

Perhaps for their peace of mind, the Karli were blessed in having no large money crop. They sold wool and some produce to Lori and Towzen, but only their surplus. They lived unhurried, insular lives, rarely visiting, but farming, hunting and holding to the pure Circle way.

*Sometimes in a hard winder, Judith wrote of them in her early days away from City, there is not enough to eat, sometimes the Karli sicken and die. But the recurring bitter experience never turns them sour. Life is their religion, so all-pervading there is no word for it except "circle". It includes hardship, suffering and death, and yet they have a sense of joy and oneness too deep to speak. One hears it in their songs, sees it in the ceremonies of their fire-days when the general love-making—as much worship as pleasure—is so rigorous that Karli women would be continually pregnant if they were not tuned with uncanny precision to the cycle of their own bodies. And since even the rare miscalculations grow tall and healthy as the rest, it only serves to reassure them how beautiful life is. So sad, so perversely impressive. If they seem to us dirty, diseased and ignorant, we are, of course, right, but I notice that, like certain fashionable ancient paradoxical philosophies, it is possible to be a bit in error even when all conclusions check and verify and are thoroughly correct.*



ONG BEFORE THE SUN touched the hills to the west, coveners drifted in couples and groups toward the ceremonial grove, a wide swath hewn out of the forest where oak, beech, and walnut grew thickest. The people ranged themselves around the trench worn into the earth by centuries of Circle. Standing with Shalane, Arin saw how the green robes of his broken circle stood out in the sea of dun hide and homespun. Garick's subtle display of Shando wealth.

At the east of the perimeter, Old Hoban and Tilda, the god and goddess, watched, with their arms crossed, the sun's descent. When the lower curve of the orb sat on the horizon, Hoban raised his arms.

"The year is done. The wheel turns again."

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Now the sun left his earthly house to wander as he must. Now came the shadowed time, the death from which, at Loomin, its darkest point, the sun must be wooed back to warm the earth. No one seriously doubted the summer would come again, but it served to refresh their connection with life—and perhaps old sun got lonely. Now the god Hoban became death, to be reached and touched, like the sun at its furthest point, before the return of the goddess with life and plenty. The dances, the symbolic joining of sky and earth by the male and female masters, were all shaped to this need and truth.

Tilda pointed into the center of the grove. "Set my fire so I can come home."

Two masters stepped out, unwinding the long, knotted cords that belted their tabards. East and west from the grove's center they measured the circle to be cast, until they had marked out a radius of thirty-six feet. In the center, the logs of the Samman fire were laid in nine tiers of nine sacred woods shining with the grease that would ignite them quickly.

The masters' thammays dug into the age-worn trench, tracing it sunways from north to north again with two parallel outer cuts until three clear new lines six inches apart encircled the waiting pyre. Salt and water were sprinkled into the trench and torches set at the four cardinal points. So with the four elements of earth, water, fire, and air was the circle purified and ready to raise power.

They must go naked into the circle. Even as Arin thought it, Kon was at his elbow: "Keep your things for you, Arin."

"And mine." Shalane stripped off the tabard, clasping Arin's hand. "Let's go in together."

First through the north gate, Hoban and Tilda took their positions in the east. The others formed from them around the inner perimeter until they numbered thirteen. One master remained outside as a courtesy to Arin that he might complete the circle.

Tilda raised her hoarse voice: "Sky fire, come to earth!"

The torch was thrust into the waiting pyre; the greased logs sputtered and hissed. Little tongues of flame licked out from the bottom tier. As the crackling deepened to a lusty roar, the massed voices resounded on a single deep note marked by the rhythm of soft clapping.

Shalane moved close to Arin. As she whispered to him, her small, oil-rubbed breasts pressed against his arm. "It's Young Girl. It's my turn this year." She squeezed his hand and stepped out to make one stiff-walking circuit of the fire. At the cardinal points, Shalane dropped to her knees, striking the ground with her open hand.

"Mother! Be big with life! Mother, be full of food."

The oil articulated the muscles of her supple body, the saddle-hardened inner thighs flexing as she moved, but her brown cheeks shone with more than the oil. Arin saw the flush of secret pride that he was watching. Again she bent to earth.

"Mother, let them find each other,

"The buck and doe,

"The bull and cow,

"The rain and seed..."

The voiced note shifted up, the clapping increased. Shalane let the cadence take her graceful movements. Again she wilted, supple as a reed, to earth, striking her hand in the dirt.

"Mother, give us back the seed."

Arin felt his mind flowing into the massed power of the circle. Yet, as never before, a part of him watched from a distance, a kind of worm in his mind, a whisperer from the

blind stars voiced what could never be shared with Kon or even Shalane. *When we've gone where we must, done what we have to—*

"Give us back the life."

*How much of this will be left?*

"Be full of food for Circle's need."

*Though this may be good, this may be truth and that girl herself a pang of beauty, the fire that will burn clean may be another fire.*

Arin willed the worm to silence. Now the deep monotone of the voices outside the circle became a song, more rapidly cadenced than before; against the long arc of the melody carried by the men, the woman-sound wove its counterpoint for the meeting dance, the touching of death before the return of the goddess. Shalane returned to his side, calm as if touched by a god, brushing across him as she took her place. Where their skin touched, it seemed to tingle, and by her new, undulant movements, she invited him into the dance with her. The music took Arin. He ceased to think, body swaying in exact unison with Shalane's, three times right and left they wove to the syncopated hands.

The masters began a spiraling, intricate passage toward Hoban, who was rigid and still in the east. They made a turning wheel snaking southward and leftways weaving around and ever closer to the god. The first touched him and, turning, danced back sunways through the approaching masters—wheels turning on wheels within the wheel of life, their minds free of self, reaching for and clasping the others' as the music swiftened again.

A surge of hot joy shot through Arin as Shalane's mind folded into his. He spun, ecstatic. They were one, then three, five liked beings, and a swell of admiration buzzed among the watchers as Arin, Shalane and the three next masters moved for an extended space as one body, five mirror-images, until each returned to his original point.

The music pitched higher still, now sharp and agitated. The power was a living entity in the circle, not minds but Mind, not many but One woven with the music that surged to an impossible tempo and suspended suddenly, unfinished, crying for completion. In answer, the high-pitched resolution began among the women, sweet with promise, painful in its need, fading to silence as Tilda stepped out from the east of the circle to stand silhouetted against the fire.

This utterly silent dance was performed only twice during the year, at Belten and Samman. The coveners waited in hushed awe. Now and at no other time the masters displayed their powers: The dance of seasons, life—the goddess—generous, ready to be wooed and as ready to elude, cast aside and deny the men unskilled in her truths. Tilda dropped on her thick haunches. Her lep struck sharply through the coven's single mind.

*So I go now as Sinjin rabbit.*

*Catch me, catch me if you can.*

Her body flowed forward in a curiously non-human movement. The woman-figure shrank, blurred, distorted and was not. The rabbit's nose twitched impertinently at the masters. As one body, eleven masters crouched, stretched forward, bodies curved and elongated.

*And we go now as weasel at Sinjin*

*To catch and bring you home again.*

The rabbit bounded one complete round of the fire, the line of weasels undulating after, when the goddess lep spoke

again.

*So I go now as a deer at Lams.*

*Catch me, catch me if you can.*

The great, sleek doe lifted her delicate head to face her pursuers. Where eleven weasels had slunk across the flickering ground, eleven huge pack dogs waited. The hushed circle vibrated with their low snarling. Contemptuous, the doe wheeled and paced away, the air heavy with the musk from her hock glands.

Teela blinked; Sand's nose delivered its verdict. This was the truth of dog. Circle ceremonies were few and crude in wild Suffec, but dog was a dark reality. His sister would have run away but he caught her and shared her fear before it burst and poisoned them separately. They shrank close together, hands on knives, ready in a moment to run away. But then, firm hands were laid on their shoulders.

*Only the masters, Kon soothed. Look again.*

The primal howl lifted from the circle. The doe was gone. Limned against the fire the old wolf, heavy-hunched and gray-muzzled, sang its winter hunger and loneliness.

*So I go now as Loomin wolf.*

*Old wolf cries in the Loomin dark.*

*Catch me, catch me if you can.*

"See," said Kon to trembling Teela. The masters stood as before, eleven of them ringing the huge animal.

*And we go now as Circle men  
To bring the goddess home again.*

Eleven masters moved in on the trapped wolf, eleven arms raised and swooped down to clutch the rough hair. Then Tilda herself was raised up, her bronzed arms lifted over them all.

*And I will come home again.*

"Dogs," Sand hissed. "You didn't see?"

Kon patted his shoulder. "I saw."

Teela glowered. *Dogs took our folks. Scared.*

Kon held them close to him, raw and incongruous in their rich green robes, like foxes tangled for a moment in a sack before they tore themselves loose.

"Me, too," he told them. It was a lie, but they loved him a little for it.

*Listen.*

The sun was gone, leaving only a thin red line over the western hills. To the east, first stars winked clearly as the poignant, yearning chord lifted again amongst the women, and the female masters formed an inner circle about the fire. At the first rap of the hand rhythms, they wove forward toward the now supine men for the marriage of sky and earth.

Arin saw first the unbound hair hanging about Shalane's face and shoulders like the mane of an untamed mare. Her body was cut sharply out of darkness against the fire-light, but where the light licked about her sides, the sweat of her exertions mixed with oil sheen. They had moved side by side in the dances, touching again and again, an arm or leg, each contact stinging with their need, till it was a secret, aching awareness between them. Though this was symbol only, he couldn't avoid being ready for her. He lay staring at the deep blue canopy of sky and stars, while his every fiber strained toward Shalane.

The music altered subtly, rising a half-step, begging for completion. Shalane crouched over him. Her face, dim in silhouette, still shone with oil and sweat. Her hand felt hot on

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his loins as she found him. When the throated chord rose to a resolution, Shalane put him in her.

Arin gasped; she answered with a tiny smile barely visible in the shadow of her hair. Usually there was no entry at all but a mere touching of loins, but in entering her, Arin found her as ready as himself and felt the small, bee-sting urgency begin of itself. Needing no movement, the convulsion grew, lashed upwards by the stimulation of her deep muscles that clasped and unclasped him in secret. He groaned deeply and his nails raked the earth. The pulsing grew to a delicious agony, burst and trembled away in helpless release under the gentle, inexorable milking of her still body. Shalane bent low over him; for a moment her hair made a fragrant private place for the two of them.

"Sky and earth," she murmured.

But the doubting worm in his mind whispered, *This may be the last. This may never come again.*

*No!*

Too late he tried to lock it away from her. Shalane caught the essence of it. Confused, she pulled away from him slightly. "Arin?"

He caught at her hands. "Not you. Not you, Shalane."

But for a short, cold breath of time, she had been joined to a stranger.

**W**ITH THE MARRIAGE of sky and earth, the circle dissolved in a rush of shouting, laughing coveners. New logs were stacked on the flagging fire. A savor compounded of delicious aromas floated from the long tables at one end of the grove. Meats aged and hung for a week in a special shed by a shaded, cool brook were sliced in inexhaustible portions onto wooden platters—venison, pork, chicken, coon, dark possum sizzling in its own fat, gamey squirrel on spits, yellow corn ears stacked in golden pyramids and basted with meat drippings. The firelit grove was awash with raucous joy, the clatter of knives on plates, the *pookn* of unstoppered jugs.

Arin and Shalane shouldered through the crowds to a table. Laden plates were offered, but Shalane took only two cups of water and two small pieces of pork as their part of the feast. She grinned up at Arin.

"I'm all sweat, Arin. Wipe my face."

He took a clean cloth from the table and, as he smoothed it tenderly over her cheeks, Shalane cupped his hands against her, pulling him close. "I can still feel you in me."

The music began again, a few ragged voices at first, but quickly grew to the accompanying hand-rhythms. Shalane started to lead Arin out, but he pulled her back. "You don't want to dance now."

She read the need, open and happy as a child. "No, No," she was already pulling him away. "Let's go home. I made juice for when we get back. Apples and pears and things."

Beyond the island of light, she broke away from him and ran laughing, her long strides noiseless in the dry grass, no sound but the rustle of her tabard. Arin followed, not as sure of the ground. Once he fell jogging pell-mell down a hill following the faint wraith of her white tabard bobbing toward the small wood at her home. They bounded up the steps, through the door, and then clung together, panting and a little silly before Shalane lighted a candle.

Her parents, Moss and Maysa, were still at the grove; the house was quiet. Shalane filled two cups from a jug and brought one to Arin.

They lay down on the narrow bed, sipping the drink. Senses

sharpened by habitual fasting, Arin fancied the trace of some taste beside fruit; violet petals or perhaps cowslip—he wondered if she'd put love herbs in the jug.

Shalane traced a finger along his cheek. "I don't need magic to hold you."

*You read that?*

*Sometimes I can. I'm so close to you.*

They undressed without parting, careless of where the clothes dropped, and wound together beneath the blankets. A warmth not quite like drowsiness stole over Arin. The periphery of his vision narrowed. The room and the candle were there, but dim and chimerical. Only Shalane was vivid, with the shadows that flitted across her parted mouth and the urgency that drew him on even as she held him back. Lashed by his own need, he was surprised to be held off like this. With Elin or others, it had always been a simple, animal thing. Shalane would give herself, but it was like Garick's gift of a manuscript that must be read from the first page slowly, with mounting clarity and excitement until the clear, joyous realization of its entire meaning.

"Give me your hand," she guided it. *There. Like that. Don't hurry. Please don't hurry.*

There were gates to be unlocked, places to be explored—and the keys, she taught him, were his own hands and lips.

*Yes. Like that.* Her hand stroking his hair closed on it in a cruel grip. "Kiss me." *There. Yes. Yes...*

She taught him the pleasure of pleasure given without taking, not teaching women, but the one and many truths of herself before it blended into his being for good, and Shalane thrashed twice in her own deep convulsions before her trembling body clasped him with strong legs and fingers that trailed red welts down his back as he entered her.

She drew more than his body into hers, she called forth his spirit, and with the need for her and the mercurial leap that bound them closer than flesh, he shared his pain. In the middle of love, they talked or shared; in the middle of talk, there was love to be made. Into the open, welcoming vessel that was Shalane, Arin poured the agony of his doubts, the loneliness yoked on him by Garick's mission, the recurrent horror of Holder falling back against the tree, forever dying and never dead. Joys, terrors, small wisdoms never shared even with Kon were passed to her and from her into him until, in the way of their kind, each was totally permeated with the other, filled, fulfilled. They drifted across the night in small wonders. Again and again, when they thought there could be nothing higher, they soared beyond it with no descent even in the times between ecstasies like weightless birds resting on mere clouds as they hungered higher for the sun.

The moon went down and still there was no sleep. Moss and Maysa came home from the grove, riotous and musical, merrily boisterous with side and thunderously in love. Arin and Shalane giggled like children under the blankets, happy that their happiness extended beyond themselves, encompassing those they loved, too. And yes—as they drooped at last toward sleep—yes, she would come to Charzen, when Arin's mission was done. She'd be with him; she was with him.

*There's nowhere else. She kissed his fingers.*

But the worm in his mind murmured, *There's Lishin...*

He pushed the thought away, angry that the heavy burden his father had put on him would never entirely cease to weigh him down. For once, though, Shalane was too flushed with her own happiness to pick up the transitory shadow within

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Arin. She stretched on her knees and elbows like a cat, sniffing with delight at her hands and arms.

"I smell like you all over. I don't want to wash you off me."

She settled down at length, one arm over him and one leg between his, pulling the blankets over them. The candle was long burnt out, and the morning crept in at the window as Arin sank into the first real rest he'd had for long months. At last, there were no doubts, not here in Shalane's arms, no Holder, and the worm was temporarily stilled.

But on the brink of sleep, he saw the last light of impassive stars looking down on him, cold and foreign and small.



THE DAYS WITH SHALANE were happiness itself, but, Arin watched the sky. Trappers took pelts thicker than in a run of years, the harvest corn was heavily husked, squirrel nests burst with hoarded nuts—all the signs of a hard winter warned him to be north with the Wengen before snow closed him in.

The red leaves dulled and fell, crackling drily underfoot. Magill grumbled. Cat's baby was born. Clay rode off on his own to scout merk signs and found too many; they were stepping up their raids. Arin waited. The blue and gold of the land went gray with autumn rain. Arin woke at first light to the anger of a wet bird piping its pique to the sky. Shalane's arm moved in sleep to encircle him. It was chilly in the room. He heard the hiss of rain, not hard but steady. There would be no warmth at all today. Old sun was halfway to Loomin. Arin yawned and burrowed back into the hollow of Shalane's throat, warm and smelling of last night's love. The musk and sweat of both of them mingled heavy and rich in his nostrils, lulling as the whisper of rain, and he might have fallen asleep again—

But someone else was thinking of the rain.

The thoughts leaked to Arin's mind, irritating as a trickle of cold water down his back, flickering in and out, troubling, troubled. Arin sighed and slipped from the bed into his robe and shoes. He found a moody, cheerless Moss in the kitchen. The quiet, gentle Karli was feeding wood to the iron stove. Fresh herb tea steamed in a kettle. Arin poured some.

*Matter, Moss?*

*Don't like the rain.*

Strange thought from a farmer, but Arin had seen Moss like this before.

*Can't help it.* Moss's eyes, the mirror of Shalane's, were shadowed with an indefinable expression Arin had noted earlier. The rain seemed to haunt him, like bony fingers tapping on the walls. Thoughts hard to lep. Arin opened himself, felt at the closed door in Moss's mind. It was a grim darkness.

*Lishin?*

*Yes.*

Arin swallowed some of the pungent tea. "I've wanted to talk about that."

"I know."

"From here I go to the Wengen, then to the Kriss. Garick wants them with us. I've got to get into Lishin, too."

"Getting in is easy," Moss said quietly. He shook his head. "Don't."

"Have to."

"So did Jude." Moss's gaze found ghosts in the shadowed corners of the room. "I carried her out. I guess I carried her. Hard to remember."

*Let's talk about Jude.* Arin passed to lep for ease and speed. Jude never told Garick much about Lishin, only that

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the Girdle was real. But Garick needed the Girdle. Without it, whatever else the covens did, even crushing the merks if they had to—and if they could, was an arrow without a head. Jude might have told more to her son, Singer, but *that* bastard wouldn't help Garick if he was on fire, except maybe to fan the flames.

*But Singer told me one thing, see Moss at Karli.*

Moss nodded noncommittally.

"Jude's papers must still be in Lishin. Papers and a map marked with three circles, that much Garick knows. What happened to the papers?"

*Long ago. Don't remember.*

Moss looked down at the table as Arin's mind clamped over his own. *A big room. Hollow iron boxes. Full of dust and ash.*

*The papers. Moss?*

*—put the papers back in the iron box, shut it.*

*Where?*

*Don't remember.*

*Yes you do.*

*Can't!*

*Nothing is lost. Think, Moss. Think!*

Moss's body writhed in painful recall and Arin tasted the growing rebirth of animal fear, and yet he pushed the Karli even further.

*Arin, stop.*

But there was no more picture, only the memory of a sound growing swiftly as Moss-Arin tugged at a door, pulled it shut on night that covered the rest.

*Arin, stop!*

It was cruel to push Moss any more. The man was shaking, and when he looked up at Arin, there was a cold distance between them. The sibilant rain whispered under the crackling stove.

*"Can you draw me a picture of that house?"*

Moss's head went up and down in pathetic assent. Suddenly, it was hard to read him. He was a page with great holes torn out of it. He rose and hulked over the stove, more to evade Arin than anything else. When he finally spoke, the farmer sounded frail and faraway. "What Garick's made you...what Garick's made you, it's not all Circle. May not be all good, Arin."

*I know.*

They drank their tea in silence. Moss tinkered with a piece of harness that needed no mending. "There's a little room," he said after a long time. "Opens off the big one. I'll mark it on your goddamn picture. That's where I hid the papers when I left. You go to Lishin, you find that room."

He paused, drifting with that curious, cold distance. "Never get too far away from it." Moss hurled the harness into the corner with a vicious jerk.

**S**HALANE BROUGHT THE GOD'S SUMMONS later that day, shaking the rain from her sodden cloak, glum as the weather.

They waited for him, a formal semicircle of benches on either side of the dais on which sat Hoban and Tilda, their old heads weighed down with the antler crowns. Shalane sat on the right wing between Deak and Bern. Arin bowed to the crowns and waited for the god to speak first.

"Master Arin," said Hoban, "we know Garick. Karli and Shando are like one coven. But Garick has raised himself to a place where his mind reaches beyond Circle. This frightens us."

"We know there's plague," Tilda's rusty voice cut in.  
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"Plague comes and goes. How do we fight it? How does war with City help us?"

Arin answered carefully. "Garick doesn't want City dead. He wants it open, helping us."

"That's fine," one grizzled master observed. "but how? Garick says go to the knife, but war with City means war with the merks."

Hoban finished the thought. "And that means different things to them than it does to us."

A profound difference, Arin knew. To the merks, war was a man's job and, perversely, a man's pride. Fear of death was for women. In the equality of Circle, it meant not only men but women and even children over twelve, riding and risking alike. It meant a dirty, prideless task like removing garbage that everyone shared to be done with and never spoke of or glorified afterwards. This was the peculiar realism of Circle. Arin would not change it.

"Merks are trained and paid for war," the god went on. "Would we fight and run as we always do, taking one or two here and there? How long could we do that, Arin? The day would come when all of us faced all of them, farmers and hunters against trained soldiers. They only have to hold us off, while we have to win or be wiped out. The time would come when one of us would ride down the line with his thammay raised, and it would go to the knife."

"G-d Hoban," said Arin. "There are more of us than them. We can win."

"We lose either way, master Arin. Lose the fight, what is left? Win, and where's Circle? Life ending life, a dog eating his own guts to stay alive, covenants learning to get by killing—for what? Winter passes, so will the plague and the merks. There's no danger we haven't lived with for a thousand years. City's silence? It's an understanding between them and us. Their soldiers don't attack. Unless we ride."

Arin interrupted. "Hoban, the merks have been riding farther and farther west into Uhia. They've killed our folk for no cause..."

Hoban demurred. "Even if that is true—"

"Even—"

"Master Arin, we see no hope and no need in this war." Tilda spoke now. "Who knows what City is or wants? Jude came and lived with us. She learned our ways and helped us. Few of our women have died birthing since then because of the magic and washings she showed us. Is this my enemy, Arin? If I ride, show me my enemy."

They waited for Arin to speak. He glanced at Shalane, her wet hair pulled tightly back in a strip and pin that accentuated her tauntness and worry. He gauged the temper of the masters. So far from being frightened, they weren't frightened enough. How do you move men to anger who have always been strong enough to live without it?

"Masters, men walking over a bridge would stop anyone from cutting it out from under them. How different is the man who comes day after day, year on year, to cut one sliver and draw one nail from the wood until it falls? The merks are City's hands cutting our bridge. Every year there's more of them west of the river boundary. They *do* attack. They do the City's work a little at a time."

The young master, Deak, rose from his seat beside Shalane. "Last year they killed a whole train of Wenger farmers."

"Yes," Shalane raised her voice. "Eighteen men and eleven women. And three babies, goddess. For nothing, for

no reason at all."

"Yes!" Arin spun gratefully, glad for their voices. "But not for nothing, Lane. For money. City pays the merks to be a sore in our side, to keep us bleeding a little all the time." He ran his eyes over the masters, making contact wherever he could. None averted their gaze. "They get so much for every dead covener. Like beaver pelt." He paused to let it sink in.

Hoban spoke, his voice betraying shock—*good, I've made a hit!*—"Arin, where did you hear a thing like that?"

"Garick learns things," Arin said simply. "If his mind goes beyond Circle, as you said, is it strange for him to learn what happens outside it? Yes they're paid so much a head. A grown man brings two krets, a boy or girl under twelve brings three. Young women, four." There was a murmur among the master, quickly stilled. Arin pressed the point. "That makes you think: less for a man than a child that won't grow up, and the most—" he jabbed a finger at Shalane; close as they were, he felt her flinch away from it. "—for the three or four children she won't bear."

Shalane stood up. "That's good enough for me. I say we should ride with the Shando."

The young man who had spoken before rose and joined Arin in the center of the room. "Arin, I'm Deak. I've trapped north; I've seen merks kill." He turned respectfully to Hoban. "And I know how thin-spread they are around City. Maybe four thousand, no more."

"No more." Shalane bobbed up again to make a third before the older masters. "Four thousand against five thousand Shando and 'most as many Karli."

"Two thousand Suffec," Arin added.

*And who knows how many Wenger—*

*Three to one!*

"If we move as one," said Arin. *Even more with the Kriss.* He locked the thought away, but Tilda turned on him her sudden, sharp glance.

Hoban set aside the heavy antler crown. Seventy-eight, coming at last to that heaviness which forest life held off to the very end or sometimes altogether, he lumbered down from the dais to confront the young people.

"You're not fools. You're masters. But young ones. At your age, who can imagine he isn't always right? You talk of change. This thing is changing us already. We're nine fighting three of our own." He touched the scarlet device on Arin's robe. "Broken circle. That's just the start. Like that tree-sucking creeper, if you win, you'll get everything you thought you wanted—and pay for it with everything you are."

Arin's worm whispered that Hoban was right; yet slowly, reluctantly, the young master drew the sheaf of thick papers from a pocket of his robe. "The merks are paid. Garick will fight money with money. Twenty krets to every master if you join. Twenty more to every Karli rider."

Shalane couldn't breathe, excited and ashamed at once. The money was a living thing in Arin's hand, more than all the Karli's farms and sheep could make in a year, more money than existed anywhere. With twenty alone, she and Arin—no, a master shouldn't think that way. Her family were never as hungry as some other; they'd even shared out in bad years. Still, the bright reality of the money burned her eyes; the thoughts came, hard to push aside.

Hoban contemplated the money. "Garick means it."

"Sure as frost," Arin nodded. "Every half-kret in his house, every apple on his trees for this year and next. And the next. As much as Lorl will lend him."

Tilda exploded in a rasping, mirthless laugh. "More

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changes. Now we bargain like Mrikans? We fight their merks and they lend us the money for it. Not even Garick could work that!"

Arin smiled; it was a peculiar smile. His half-brother might have noted it sourly as the beginnings of sophistication.

The Karli knew less of Lorl than his father, Arin thought. Its heart was a stack of bills. You could buy men there as easily as a crib girl. They sat on the side of issues, fat frogs watching the dip of the scales. "The sida mills go with the money, Tilda. Garick wins, they get paid. Garick loses, they take his land."

Like an old, forgetful bear, Hoban shuffled back to the dais and placed the money on the arm of Tilda's chair. They shared privately an old knowledge of Garick: *all brain, but a heart you could drop in an acorn shell and hear it rattle. Gets what he wants because he always pays the price.* Maybe if Jude had lived, he would have been different, but men warped with the world. Hoban leaned close to the goddess. "I bought Garick a knife in Lori once. Bad lesson. Now the bastard wants to buy me."

One reflective finger tapped at the stack of krets. Twenty of them would buy a lot—good clothing, axes, plows—or a lot of death. Hoban picked up part of the packet and chucked it in a spinning arc at Arin's feet. "There's my share."

Tilda rose, peeling off a sheaf of krets. "And mine."

The other masters stood one by one.

"And mine."

"Mine, too."

"Mine."

Hoban lifted the crown and fitted it over his white hair. The god and goddess stood gravely side by side.

"Tell Garick," said the god, "The masters of Karli will talk with City any time City wants, but we won't kill one farmer to do it. If that's what it takes, the Karli say no."

## RIN, YOU PACK NEAT AS A WINDSTORM."

Shalane huddled glumly on the edge of their bed—she thought of it as theirs rather than hers now—watching Arin stuff his belongings into the saddlebag. She wanted to tell him he was right and Hoban was right, too, but what would he think of them now, and yet somehow it was choked off by the panic of seeing him go, seeing him take the robe from their bed so that not even that was touching her any more, roll, stuff, cinch...go. Maybe if she had a child in her, maybe if he even thought there was—

"I'd still have to go, Lane."

"Damn you, do I always leak? Can't I think just once without—oh, gimme that!" She snatched the robe and shook out his clumsy folds. "No, leave off, Arin. I'll do it."

?

I'm all right, Arin.

You're not.

"Go 'way."

She meant it, head turned from him, fingers too careful and too long at the refolding. "That Elin, can she cook?"

"Sure."

"That all she does?"

I'm with you, Lane.

Shalane shoved the robe into the bag with an angry push. "With you, with you, I don't want any woman with you. Hell, I must be sick," she finished with lame disgust. "Hey, what you doing?"

He was pulling the pin from the hide strip to free her hair that was still crinkly from the dampness in the air. "Want to,

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smell it." Arin buried his face in her hair. She twisted around into his arms with tearful need, pouring out the hot feelings in a jumble of sharing that words couldn't begin to sort. Neither he nor Garick could dare think the Karli were afraid to fight. If Hoban says no, he's got good reasons. But I'll come like I said. Only she didn't want him to go now or ever, and that Elin with her goddamn bedtime eyes, she was too pretty, and Shalane could hate her "If I wasn't a master and above that." But you call me, Arin, and I'll hear. I'll pick your leg out of a hundred voices and a hundred miles. I can, I'll hear. Call me. "And I did put love herbs in the juice that night," Shalane wiped clumsily at her tears, "but... but just a little." She shivered against him. "Lie down, there's time. Please say there's time." Hold me. They lay still together, complete, senses and thoughts closed to all but each other. And so they missed the faint first leap as it pulsed into other minds.

Someone coming.

Before the cowan was within a mile of the stockade, he was observed by hundreds of puzzled coveners. He leaked nothing they could read him by, and the children stopped dead, the shouted greeting stillborn. If their elders detected no fear in the man, they found no warmth.

A premonition niggled Kon. He rode out of the trees in a lazy arc that bisected the trail. Magill followed, noting the other men and women who moved noiselessly out from the covering trees. The cowan plodded on as if they didn't know or care what he was ringed in.

"Where y'all from?" Magill asked regarding him with open curiosity.

The cowan halted his short-legged pony. He looked at Magill with remote distaste. "I am called Micah." His voice was deep; the words were Uhan, but slow-measured and carefully pronounced like the Old Language Arin spoke sometimes. "Sent by Uriah to see the man called Arin."

Moss rode up between Kon and Magill. The older man had an arrow ready. With surprise, the two Shando read him taut as a bowstring. The feeling he shared was dangerous.

"You-riah," Magill tried the unusual sound. "He you god?"

"No," said Micah. "He only points the way." He spread his arms to show his lack of weapons, about to speak again when Moss cut him off.

"Whoever he is, he owes me a horse and a friend."

I know his kind; I wouldn't forget. "He's Kriss," Moss stated, frigidly calm.

Micah's bowed head moved once in affirmation, a narrow head with a blunt axe-blade for a face, all planes, nothing soft. Touch his cheek, Kon thought, it wouldn't push in at all. Cold. Hard as an axe.

"That is your name for us," said Micah. "The Kriss..."

**T**HE TWO STOCKY YOUNG MERKS in brown leather pondered carefully the hoof and human prints pressed into the streamside sand. Dragging was never easy, but this bunch was especially clever: scattered over half a mile, never more than two horses together.

The youngest of the two stood up. "Still bearing north on the old road. How far behind you make us, sek?"

The other man pointed to the still-moist horse droppings. "About an hour."

"About forever, sloppy as you are!"

The pair spun, startled, when they heard the deep, rich, cutting voice so close behind them.

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The black man, close enough to touch, was a tapering oak in a camouflage suit just beginning to tighten over the added flesh of middle age. Under the camo paint, his mahogany skin was carefully dulled with dirt to eliminate any shine.

"Commander," his sek murmured, still surprised, "You do walk quiet."

Bowdeen regarded his men with strained patience, but his generous, averted mouth was not made for scowling. The ghost of an old joke haunted its edges. "Man, you call that quiet?" He pointed to the tracks. "Longside them coveners, I'm loud as two skeletons screwin' on a tin roof." He bent over the mangle of prints. "Well, looker here, sek," he drawled, "don't that look like moneymeat?"

Bowdeen indicated a long, narrow footprint. "That's a woman. Makes two. Lead found another one on his flank." He spoke with a musical rise and fall, the Wengen sound still unobscured by twenty-five years in the merks.

The sek looked pleased. "I make out at least six all told."

"Eight," Bowdeen judged, scratching idly at the graying tangle of his hair, "maybe nine."

"Do we take 'em?"

Bowdeen stared at the faint tracks and calculated. Their tally bags stank already from the feet and hands that had to be presented for proof to Callan. Even so, the drag hadn't earned much for any of them. He'd ordered Callan to ride on back for money to be paid out on what they had so far. Callan didn't like it—that fish-eyed *mojo* always thought he knew better, but it was a direct order, so off he went—where, Bowdeen didn't know or care. Maybe the money came from City, maybe Lorl, he didn't give a goddamn so long as his men got something on account. They weren't on City contract at the moment, so they could quit his company unless they got paid. A little money down might keep the outfit together till real soldiering time again.

The fresh trail was too good to pass up. He nodded. "We take."

Bowdeen spread out a map from his hip-case and oriented his compass. He knew the coveners zigzagged as much as possible, but always came back to the same bearing on the ancient road. His company could trail and maybe get one or two, but they'd flush the rest that way. Spooky deepwoods mosos probably reading them already. Bowdeep continued to peer at the map, following the line of the road, looking for... yes.

"They can't move fast in these hills," he said. "Pass it on, sek. We gonna slide off fifteen degrees north of their base line, pass them up and wait...right...here." His finger touched a brown spot in the wide splash of green on the map. "It's a high, bald top, highest around. And the road crosses it."

One of the younger men started to protest, but Bowdeen grinned down his objection. "No, man, they ain't gonna just walk up and say hey, but that hill gives 'em a good looksee ahead and behind. They know we're here, I bet on it. They gonna wanna peek and find out where." He nudged the young sweep. "Boy, you remember the meet-point for sub Callan?"

"Yes, sir."

"Get on down there, wait up for him, bring him over to old bald top, like I show you on the map. Tell him, have his money out, 'cause he gonna be dealin' till his goddamn thumb gets tired."

The sweep was reluctant. "I'll miss out on the take. That's a hunk of money on up there."

Slapping him on the shoulder in friendly understanding, Bowdeen replied in a high-spirited singsong:

"Well, don you fret . . . 'cause it's all fine.  
You gonna get a piece of mine!"

He gestured to the sek. "He's your proof for sub Callan. Now haul ass."

"Yes, sir!" The sweep saluted in the careless manner that only old Bowdeen would allow a subordinate, swung into his saddle and spurred the horse. Bowdeen and the sek watched as he worked the mount back across the stream bed.

Bowdeen's good humor faded to a frown of concentration. He stooped, spreading a big hand to measure the footprint. He rose, exhaling noisily. *Damn, getting harder to squat.*

"Sek," he questioned, "before you came to the 43rd, you get much merk time in deepwoods?"

The boy shook his head. "Chased some Wengens when they raided Filsberg. Mostly wagon traffic on the Balmer passage."

"Balmer, huh? Right up there, cock'n'box with City."

"That's about it, sir."

Bowdeen nodded in worried agreement. "All you boys pretty new to deepwoods, except Callan. Now listen: learn to read these prints. It's way north for them, but I bet my granny's ass we're dragging Shando. See that crisscrossy mark along the edge? That's how their women stitch their moccasins. Big, too. Never saw one much under six foot."

The sek grinned, interested. "What about the women?"

"Man, I'm talking 'bout the women." His voice softened. "Fine-looking women, sek. Got a lazy way of looking, some of them, and a way . . . some of them got a way of touching a man . . . hoo-ee!" The memory sparked in his eyes.

"Up all night until you droop.

Make that thing jump through a hoop!"

He sighed, letting the picture fall flat back into the past like a dead leaf.

"Two of those fine-looking women on ahead," the sek reminded him.

Bowdeen's voice turned hard without raising. "Not on my drag, boy." He fixed the sek with a hard look. "These are Shando. You can dry-shave a tough beard with them black knives they carry, never even feel it. We find them, we drag and take, that's all. Anything else you forget, 'cause them fine, four-kret women'll cut you balls to brisket 'fore you even get it out."

Bowdeen rummaged in his pocket, found a protein ration bar, unwrapped it and took a healthy bite. "Round up your men, column order."

"Yes, sir," the sek started to move off, then paused. "Commander . . . ?"

"What you want?"

"I was just . . . wondering, I guess. Weren't they—uh—Circle where you came from?"

Bowdeen's white teeth chewed steadily, while his mouth widened in a dry grin. "Boy," he drawled, "where I come from they weren't nothin' but hungry."

**C**LAY WAS SWEATING, DESPITE THE COLD. He'd ridden hard to catch up with Arin. The broken circle ringed him now, as he reported, half in lep, the rest in whispers to exclude Micah, the Kriss.

*Marks.*

Arin shot a glance at the Kriss. *How many?*

"Thirty, forty."

*Bears after honey*, Kon observed.

Magill shot a look of fierce exasperation at Micah resting against a tree. "Probably heard old Mike singing one of them him-songs. Got no sense at all."

Ever since Karli, Micah had been a problem for Arin. The worm of doubt still niggled in his skull, sardonic, distrusting Micah: *he might have set this up, throwing us to the merks for money. Try to read him.*

Arin laid his hand on Clay's shoulder. "Walk your horse over to mine. Wait for me."

"You're the master," Magill challenged. The words had a belligerent edge.

"That's right," Arin responded sharply. "And I'm gonna do what's best." He strode over to the tree, searching Micah's impassive features. "Mike, we've picked up some merks."

Micah returned from his distant meditation. "How do you know?"

"We Know."

"There is no danger, Arin. Your people are under Kriss protection."

Arin could not probe that closed mind. "My folk think maybe you planned this as a trap."

"To have you killed?" Micah's surprise seemed genuine. "Uriah would hang me for that."

True or not, a decision had to be made. Fast. Evasion, zigzagging would cost time, and the air was already flat with snow-smell. If they ran, the merks would trail, forcing them to scatter and waste more precious time. They might even be forced to fight outnumbered, over ground that gave the merks advantage.

Clay, waiting with their horses by a chestnut oak, peered at a high, bare prominence across the steep valley. Arin leaned across the horse's shoulder to him.

"You were a merk, Clay. What would you do now?"

Clay's narrow fox face contorted in thought. "Got a look at their saddle markings," he said. "Looks like the 43rd, old Bowdeen's outfit."

"Who's he?"

"Black Wengen. No lep, but smart. Knows Circle, hunted with Shando way back. Trying to guess what he'd do."

*What you think?*

*Old Bowdeen's coven-smart. Still . . . Snow coming, maybe tonight,* Clay guessed. "Hard on the horses, we can't hide as good, neither can he. He'll bush us, get all he can at once." His eyes pulled Arin's to the mountain top across the valley. *There.*

Arin considered. *We go around, will he follow?*

Clay's shrewd mind weighed it all and added his own merk experience. As well as he could, he explained for Arin the principles of base line and compass, and how Bowdeen could plot from it their direction and average speed. Likely he knew where they were going, and if he missed them on the bald top, the snow would make them easy to follow. He'd trail.

Arin remembered Kon's thought. *Bears after honey.* The merk had it all guessed out. *Then—what's the one thing old bear'd never think of?*

Clay didn't know.

"We're gonna hunt him," said Arin. "Just like a bear."

?

*Over bait.*

"Bait?" Clay echoed, surprised.

Arin's eyes went to Micah, sunk back into his meditation

beneath the tree.

—arrow slamming him back and back, again and again—

Micah was a cowan; he might well have set this up, but the choice was still hard.

Who said anything was going to be easy? his mind-worm taunted.

**S**OMETHING MOVING DOWN BELOW. Bowdeen's eyes crawled along the estimated position of the partially hidden road. There! One rider coming right up the line of rubble. The commander spun and jogged back up the edge of the saddle and pointed down the hill.

"Get ready."

Maybe they weren't Shando after all. The rider seemed too careless. Nevertheless Bowdeen's word passed down the line: think white, just white, nothing but white. They can maybe read you.

He chose a point near the center of the arc just short of the ridge, commanding the best view with a sweep a few yards away to relay orders. The young man near him strung his bow. Three arrows protruded from the ground beside him.

When the wind veered, it brought to Bowdeen's ears the sound of a deep voice. Again it came, stronger. Bowdeen and the sweep looked at one another incredulously. *I don't believe this.*

Singing.

The monotonous chant grew steadily louder, then the man broke into view, leading his horse out onto the bald top.

Bowdeen felt faintly ludicrous; the dumb mofo was marching right up the middle of the bare saddle, oblivious to the world. Bowdeen noted the cut of the heavy woolen robe with its unique hook-and-eye closures; only one kind of folks made their clothes that way. The man was Kriss.

The commander considered rapidly. Callan didn't say Kriss were moneymeat, but then he never said they weren't. The question never came up; you didn't see Kriss that often.

But where's the others? His fingers curved around his bowstring when his old instincts flared, kicked him hard: *let him go. Don't!*

But three other arrows hit the man almost together. He toppled over like a gutted sack of grain. The spiritless horse faltered to a stop a few paces away. Silence.

Bowdeen still didn't like it at all, the more because he didn't know why. He waved the sweep to him. "Tell lead and sek to wait for my whistle. Don't go for money yet."

They waited. First one, then several hawks wheeled high over the dead man. Treetops rustled gently in a slow, chill wind. The heavy-shouldered horse nibbled at sparse grass while the hawks swooped lower. Where are the others? The sweep eased back to his own position. They waited.

Finally, Bowdeen knew they must have passed by lower down, which meant he could still trail. If they were as careless as this one, he could bag the whole bunch. Bowdeen shrilled a long, low whistle through his teeth. Three men stepped from different points of cover and converged on the body. Bowdeen rose, motioning the sweep. "Stay put, gonna go out and—"

The warning instinct froze him in mid-stride. It squeezed at his stomach, shaping his mouth to the unborn shout of warning. Get back. Cover. A hot spurt of danger-feeling burned straight through him. His three men were doomed, already dying in the gray light and snow-smelling air; he saw them dead even while they stood there breathing. "Run!" But the arrows were already snarling. Two of the men fell

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without a sound. The third staggered an aimless step or two, more shocked than hurt by the missile high in his arm.

"Run, goddammit! Cover!"

Dazed, the man lurched into a clumsy run. The second arrow took him square in the back.

Bowdeen flattened out, cursing his own stupidity. They were Shando, the long arrows told him that. Self-disgust filled him like a cold poison: getting old, getting slow. *Felt it coming and did nothing.*

Someone called him from the left, the sek's group. "Commander! Com—" The voice was sliced off. Silence. Moments passed. Nothing moved the circling hawks.

The Shando couldn't be everywhere, not enough of them. Let his men freeze in position, make the mosos come to them. Bowdeen started to signal the sweep—and then he saw the figure behind, within an arm's length of the boy, tall but too slight for a man, the cannily painted face barely visible under a streaked brown hood. She would have been hard to see dead on without that terrible, purposeful movement. Bowdeen was already too late to stop, her face a blur of paint and dirt, a wisp of straw-colored hair under the hood and the knife scything down even as Bowdeen pulled the bow, the gurgling hiss as the sweep's life sprayed out in a dark fountain, the thum—wock of the arrow and the girl spinning away, sprawling with the shaft under her ribs.

"By two's!" The order came from the lead, off on Bowdeen's right. "Fall back on center!"

"No, stay down!" Bowdeen yelled. "Stay where you are!" He rolled sideways, grasped the shedy stuck upright in the ground, was up on his knees when he saw the boy coming past the dead girl. Almost the same blunt face twisted in a soundless shriek as the boy bent the bow. Bowdeen dove flat; the arrow furrowed deep across the back of his shoulder.

Sand dropped his bow without breaking strike, jerking his black knife from its sheath. With no time to rise or guard, Bowdeen slung the shedy at his legs. The boy leaped high, avoiding it. Too late for anything else. As the other plunged at him, Bowdeen went over backwards, tripping him up. Even as he fell, the boy was slashing. The knife trenched across Bowdeen's middle in a long, shallow wound. He grabbed the boy's wrist. *Make it fast, he's too young, too quick.* He drove his fist into the narrow stomach, opened his hand and chopped down with its calloused edge at the base of the neck.

Bowdeen panted on his knees like a crippled bear. His shoulder burned and the front of the slashed camo shirt was covered with a dark, widening stain. Not that deep, he told himself, but old man, old man, don't you go riding no more.

He trembled as he inched away on his side, putting space between himself and the dead covenor. They always buried their dead; so he better not be too near when they came collecting.

*Just a boy. I could be his granddaddy. Sidele, Sidele, magic me home. Can't make it no more.*

He inched further up the ridge through the underbrush, thoughts pounding in slow tattoo with his labored breathing. No way to live. No way to live. I hunted with these people. None better nowhere...for two krets...

The stillness was eerie. A hawk glided across an opening in the treetops. Time passed. His consciousness of pain was punctuated at intervals by the whine of arrows, choked cries. He *felt* every one of them. Someone broke and crashed heavily through dry brush before the missile or knife brought him down. Don't run. Let them come to you. Awkward and stiff, Bowdeen sprinkled the packet of healing powder over the

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coagulating wound. He wondered dully if the lead and sek were still alive. *Go down, sun. Get dark.*

*But it would be a long time.*

**O**NE BY ONE, THE BROKEN CIRCLE—Arin, Kon, Magill, Elin, Clay and Hara—stumbled along the river bank until they reached the rockslide. On point ahead, Clay and Hara found the steep upward trail that three other travelers took several decades earlier. At the top, Clay stepped up onto a rock at the cliff edge. The huge vista showed him, it seemed, half the sky that ever was. He could see for miles across a broad gray valley. Below him, a river wound like a brownish-black snake past a dreary place of canting spires and hulking dark towers bigger than anything Clay had ever seen. Off left, the fog-wraithed water was spanned by a wide, rotting bridge, much of it eaten away.

"Lishin," said Hara beside him.

Arin said Lishin was one of the places they had to go, even though it was dead. They stared at the dark stain of the town on the valley floor and shared their fear. Now they knew how the sun must feel at Loomin, furthest from goddess earth. Lishin was—cowan, it was outside, it was many bad things. But it was *not* dead. Death would have returned their probing senses empty-handed. Something was there, coldly alive. They turned away.

It was almost impossible to lep now, drained as they were, but the broken circle managed a faint trickle of power to the masters at Karli: how they fought the merks, how Sand and Teela would be born again. There wasn't strength to say much else.

A surprisingly powerful lep came back: *and Arin?*

Shalane's voice, but though Arin acted to share with her, his folk were too exhausted to lep further. Reluctantly he broke the connecting threads of power and let them rest.

After a long time, Kon muttered, "What's that Kriss name for where we going?"

Arin wrenched his mind away from Sand and Teela and the detested smell of killing that hovered over them all.

"They call it Salvation."

## THE LAUGHTER OF WOLVES

**T**HE LEP PIERCED ARIN'S THOUGHTS like a pin in a bladder. He reined up. Magill—coming back fast. In a moment, he emerged around a shallow bend in the shoreline, galloping out of the whirling snow, jerking to a snow-spraying halt in their path.

"Up ahead!" He waved his arm with a strangely spastic movement. They all read his fear! Magill was terrified.

"The god sign?" Arin asked.

"It's there." Magill didn't move out of their path. His agitation made them all wince in empathy. A sickened shake of his head. His eyes impaled Arin's with their accusation. "Where you brought us? When we fought the merks, didn't I come to have you clean my knife with salt and fire and water? Didn't we all come to be clean of death?"

"All right, Gill," Arin soothed, frightened himself at the depth of the man's terror. "We're with you."

"Ain't nobody with nobody! Not here, not in this place—it's dead, Arin, like that thing up there! Don't put me on no more point," he ended pathetically. "I'm scared."

Neither lying nor malingering, not Magill. He'd seen something that momentarily cut the courage out of him. Only a fool is brave all day. But they needed a point, and Arin couldn't ask any of the others now. Except one.

"Kon."

The tall, quiet man reined himself in knee to knee with Arin. They spoke in low tones. "Moss said the Kriss would be watching," Arin murmured. *Our fold are scared.*

*I'm right with them.* Kon admitted. "What we gonna do, Arin?"

Magill's fear soured Arin's mouth. "Whatever's round that bend, we ride up and look it smack in the face. You and me. They'll follow."

Kon glanced at the others. "Arin," he sighed, "you're gettin' dangerous to know."

The two trotted forward, hoods drawn back for better vision despite the snow. They rounded the shoreline and saw it. Kon would have jerked to a halt, but Arin's mind grabbed at his. *Keep riding.* They slowed to a walk, silent in the face of the thing that scared Magill. From a distance, the figure seemed alive, an illusion created by the movement of the driving snow and the artisan's unbearable realism. Closer, they saw it had been cut from wood with a morbid skill bordering on genius.

It stood easily ten feet high, its thick beams hewn roughly square. The figure had been painstakingly carved from a lighter toned wood, horribly faithful in its agonized detail, the flesh of the splayed, tortured hands torn with exquisite, almost surgical accuracy where the brutal spikes pinned them to the crossbeam. Life-sized, the wooden victim hung by his hands and nailed feet, a further wound in faded red gaping under his skeletal ribs. A carved corona of thorns, jammed cruelly down over the skull, was etched with painted blood, ancient and peeled, trickling in realistic droplets.

*Told you, Arin.* Magill waited some distance behind with the others. Arin read their horror not only as a sharing, but in the stiff aversion of Hara's glance, Elin's head bowed over her hands. But Clay seemed absorbed by it. Something in his reflective tone made them listen.

"Old man in Filsberg told me once about the Kriss. They call us *witches*. I remember because I never heard the word before. They say we can't look their god in the face." He stared for a long time at the god sign. "No wonder they think that. What kind of people would make a god out of... hurting like that?"

Arin wheeled around to them. "Come up close, all of you. Take one good look!" *They're watching, you know they are. Look at it.*

Loyally they moved forward to stare at the carved god. The wind blew over the river and the still watchers in the hills above followed every movement of the Shando. Starting up the trail into the hills, Arin told them, "Witch is just a name, Old Language name for Circle."

His attention was focused on the wooded slope ahead. Several shapes flitted through the trees in clumsy attempts at concealment. Anger grew in him. *Bastards—who's afraid to face who, Uriah?* He squinted back down the trail, looking for Clay, who still lingered by the god sign. "What the hell's he doing, Kon? Clay!" He didn't care who heard him now; he was tired of hiding. "Close up, boy!"

Clay waved back from the beach. He had less fear of the god sign than the others. It was a new thing; he wanted to look at it. The evil he saw had its own allure, a fascination of Otherness.

Perhaps the artist hoped to represent some humanity in the

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face; its line strained unsuccessfully in that direction, all but obliterated by the crude howl of pain. It was the twisted mouth, caught in its agonized utterance, that revolted Clay. He flinched to think of that obscene shriek as the voice of a god, braying out forever over the dark river, season in and season out, the pain-maddened eyes blind to the greening of the goddess, the scream distorting the song of birds, howling forever without surcease.

Clay forgot to breathe. The face was a doorway opening on terrible pictures that flashed by too quickly to be singled out, blurs of movement caught in light and shadow. He tore himself back into time, glaring at the figure, as if it had authored the evil visions. Wheeling his mount around, Clay bounded up the trail after the others, eyes bloodshot and unfocused like a man too quickly awakened from bad dreams.

## S ALVATION LOOMED UP SUDDENLY.

A vast, tidily cleared area of a mile or more, well-kept cabins, hardly a sign of worked fields, trails that crossed regularly in a definite system more like the streets of Lorl. The snow deadened sound. To record his position, Arin called a gather-in and they leaped their arrival to Karli. There was no perceptible answer; he doubted if they were read.

They drifted in eerie silence down what appeared to be a main artery, always expecting people at the next corner, always disappointed, but their instincts quivered with the sense of being watched. Elin glimpsed the hostile eyes of a woman through the narrow slit of a door before it shut with a bang. The road opened at last into a wide square bordered with dwellings and dominated by a large, white-painted building, spired and surmounted with one of their god signs. In the center of the square was a larger replica of the same symbol, slightly different from the one on the river bank. The thorn-crowned head hung forward, brooding down on the Shando. Wind eddied the snow around them in little whorls. Nothing else moved.

They knew they weren't alone in the cold square. The heavy, impenetrable blanket, felt first when Micah approached Karli, now closed tighter about them like a shroud. Their overbred horses skittered nervously. Magill saw a dark-garbed woman scuttle between two houses and disappear. His tentative call was flat and sudden in the silence.

"Y'all come out and say hey!"

His temper worn thin by fatigue and lack of sleep, Arin rode a puzzled circle about the square. His people were reaching to him for assurance. He had no patience left for Uriah's shadowy game. *That's what it is*, his tutor worm whispered, *a power game. Wait humbly, he'll know you're uncertain. Get angry, it will show you weak and arrogant. Either way, the moment is his. Take it away from him.*

"Sumbitchin' games." At his rein-flick, the mare leaped into a loping gait about the square. Arin's voice rose clear in Old Language, beating like an angry bell in the stillness. "Where is Uriah? Where are the Kriss?" Wheeling around and around so all the hidden watchers could hear him, "We have seen the picture of your god and are not frightened. Is his magic so weak it can't save you from six tired Shando who only want food and rest and a warm fire? Where are you?"

Their sharp hearing caught the minute creaks of a door hinge, then another. Arin spurred about the square again halting before the white building. *In line behind me*, he ordered; the Shando trotted into formation. Arin swung aside

and swept his arm toward them. "As we looked at your god, look at us. We're men and women like you. This is Kon, my right hand. This is Magill, my left. They've followed me since we could first ride. Is loyalty strange to the Kriss?"

He paced the mare down the line. "This is Hara, the best of our hunters. Is hunting new to the Kriss? This is Clay who will be a master someday. Are strength and discipline strange to the Kriss? And here is Elin who might have had any house in Charzen and any man to be with. She asked to ride with us instead. No man here has endured more, no one of us who isn't grateful for her warmth—"

"Sure as frost," Magill murmured. Only Elin heard him.

"—Are fine, brave women strange to the Kriss? Three of ours and one of your own died to get us here; do the Kriss, who carved pain into wood, think so little of it in flesh? Was Micah a fool to bring us?" He spread his arms wide. "We're only people like you. Be people and come out."

"Welcome, Prince Arin."

He had turned away from the large white house on his last words. When he swung around, two men were there on the steps, one bare-headed, the other cowled in the wide folds of a black hood. The bareheaded man, not very large, was thin and erect in his robes. His voice seemed impossibly powerful for his ascetic frame. He descended the steps; the other followed. The wind whipped snow into his face, but he seemed oblivious to it. "I was praying with the elders in the church."

Arin dismounted to meet him. The cast of the face was not unlike Micah's, the eyes deepest but clear and present, glowing with life and intelligence. Arin could read even less of him than Micah, only the mere surface of deep and powerful currents. The white hand offered to his own, though delicate, was work-calloused, the creases black-veined with years of coal dust that nothing could wash out. His untanned cheeks barely wrinkled with the first lines of age; older than Garick, perhaps, or a little younger.

"I am Uriah, the chief elder of Salvation. And this is Jacob," he indicated his escort who stood with bowed head one respectful pace behind him, "who serves at the alter. Forgive my people," he gestured with graceful authority toward the houses. "You are the first coveners to visit us, and our beliefs go four thousand years deep."

More doors opened now; men and women appeared cautiously on front steps staring at the newcomers.

"Nevertheless, as King Garick says, it is a time for change."

Arin nodded without reply, but his mind fluttered with something not quite as sharp as a warning: this was a man who listened and remembered what he heard.

"We will forget as much of our difference as the time allows. You are welcome." Uriah shot a keen glance at Arin. "How did Micah die?"

"Mrikan soldiers. They bushed us."

"Bushed?"

"Set a trap for us. City pays them to hunt us, so much a head. They got Micah and two of my own. Let him be born again to you as ours to us." Arin was conscious of his first diplomatic lie and was glad the Kriss had no lep.

"Each to his own," Uriah acknowledged inscrutably. "Garick sent no fool for a messenger." He turned and walked down the line of dismounted Shando, greeting each. "You are all welcome. A man's face is his history. Let me see how you are written. Kon, is it? Yes, Kon." He peered up into the big man's face. "Strong and gentle and loving. Be careful not to

love too deeply in this world, Kon. It could hurt you.

"Magill," he moved down the line. "An interesting face. All fighter and all heart, I'd say. And a Jing by the set of your eyes. They conquered this country once."

"Heard that," Magill drawled, catching no more than one word out of three in the unusual, cadenced flow. "Don't know for sure."

"Be sure," Uriah passed on. "And Hara. Yes, Hara." He perused the hunter silently for a moment. "You're a fortunate man. You've found peace somewhere. That is a treasure. And last, young Clay, the master-to-be. You—" The chief elder paused again, longer this time. "You have strange eyes, Clay. I think they see more than they want to." He turned to Arin with an air of courtesies well concluded. "Prince, a warm house is ready for you and your men. We will find something for the woman."

Arin stiffened at the cool insult to Elin, felt the same reaction sure through his men. He started to speak, but Elin did it herself.

"I look like a horse, Uriah? My name's Elin."

Uriah turned too sharply, apparently surprised that she would dare address him directly. Though Elin was inches taller, he seemed to look down at her.

"And Elin, yes; Elin who might have stayed home. We have different ways, girl. Unmarried women do not live with men. You will be housed apart."

The silent Jacob touched Uriah's sleeve and whispered something. They moved apart and spoke rapidly in Old Language, inflected in a manner Arin found difficult to follow beyond the drift—"What you do to the least of these"—and Uriah countering with dry composure, "And will you quote Scripture to your own purpose, Jacob?"

Jacob's voice rose out of his cowl. "She is hurt, elder!"

"Young Jacob reminds me of charity," Uriah allowed with a glint of humor. "And what must be rendered to kings. The girl may house with you."

Jacob raised his head to Arin. "We're not strangers to suffering, Arin, or its value to the soul—"

"Wait!" Arin pushed the cowl away from the man's face. "Well, damn, it's Jay! Old Jay." He engulfed Jacob in long arms, happier than he thought possible to see a familiar face. "Jay, haven't seen you since you laid me out."

"Forgive my anger, Arin."

"It's forgiv—looklook, here's Elin!"

But magically they had already moved toward each other, awkward and eager. The girl's eyes shone with tears.

"Hey, Jay."

"Hello, Elin."

His hands won the conflict with his caution, went out to close about her shoulders. He peered closely at the two rivulets lengthening through the dirt and vestiges of paint, then at the long, powder-flaked wound.

"They hurt you."

"Just a little mark, Jay."

"May God damn them forever. They hurt you."

They might have been entirely alone beneath the god sign. Magill read Elin and closed his thoughts away from the others. She had come for this, then; all the miles, all the pain for this, not even sure, perhaps, until this moment. She had come searching for Jay, who had only been able to express his love for her by striking Arin and then fleeing Shando country the day he'd found them together on the hill. The wind whipped about them while the Kriss watched and Uriah measured them both with an expression Arin could not

fathom.



OU HAVE THE LEP," Uriah explained to Arin. "We have other ways of gathering information. Our men travel to Wengen and Mrika with the coal wagons. They watch and listen very carefully."

"I wondered how you knew so much," said Arin.

"And we pay others to watch and listen, the same as Garick." He answered Arin's surprise with a faint smile. "We are an island of—cowan is your word?—in a sea of coven. In our place, wouldn't you watch and listen, too? Nothing is free, Arin. There's always a price."

Arin nodded at the truth. He was learning that rapidly. They walked on over the snow. "Sometimes our people have tried other ways. Young Jacob left some time ago. Our faith seemed too narrow for him then. He wanted to try Circle. He traveled a long way, finally to Charzen. He was half-determined by then to come home."

Arin listened as the intense power of the man rolled forward in measured thought like a broad river. Uriah, pale face partially hidden in his hood, was totally magnetic. He carefully rephrased the fluent Old Language when Arin's command failed him, passing with ease and tact into simpler Urihan.

"Jacob had to find his faith by leaving it. It is very deep in us, Prince, like certain musicians of the ancient world in whose work the *Dies Irae* could always be heard, so our faith sounds its own deep chords with which our souls must harmonize. Strange you have no word for religion."

Arin's mind, already hammered by Edan and honed by Garick, began to flex, seeking new strength under the test of Uriah's agile, darting intelligence. "Religion? How could there be such a word, Uriah?" The constant use of Old Language was adding its own precision to his thought. "We say Circle, but that's not all of it. Not deep or low or high or anything. Circle just is. We take it...granded."

"For granted?" Uriah pried and corrected in the same tactful breath. "Yes, perhaps."

They worked their way across the snow-drifted square toward the church. "Like King Garick, my power is not absolute. I must plan and argue and persuade."

"Why do you call him King?"

"Because he becomes one and invites the other coven gods to take up crowns as well."

They had reached the doors of the church. Uriah pushed them open, stamping snow from his boots. A few candles burned near the altar, over which writhed a smaller replica of the murdered god.

"Why do your people think we can't look at this?" Arin's voice echoed slightly in the chill, vaulted nave.

"An old belief."

"But it's not true."

"Obviously."

"Then why do they believe it?"

Uriah shrugged delicately. "Why do your people believe that you, as master, have power over their lives when you are actually only a hypnotist with a peculiar type of brain cell developed through inbreeding into an hereditary trait? Belief is a nail, Prince. Belief defines. You and I perhaps can shape our creeds with subtler tools, but for the average man, there is only the hard, hammered nail. I could not change it." He studied the young man's face upturned to the cross, saw the aversion Arin couldn't quite cover. "Is our belief *entirely untrue?*"

· Emerging from his own thoughts, Arin faced Uriah. "Elder, I'm here to know whether the Kriss will fight with us. How can Garick trust a people who won't even sit down to talk or eat with his kind?"

"And what will happen to us among Circle folk," Uriah countered effortlessly, "if their messengers chafe at our ways even before any agreement is reached?"

Subtle: it was a word he'd learned from Garick, but Uriah demonstrated the meaning. Subtle Uriah: he couldn't be read or maneuvered or out-thought. Arin weighed his tactics. "Then, to find where we touch, let's find where we part."

"An excellent beginning." Uriah seemed pleased, even eager. "Tell me how we differ."

"When we look at your god, we see only a cruel death, something no covenner would do to anyone, not even a merk or a cowan."

He caught himself with the last word. Uriah caught it too, but his irony carried no barb.

"The mercy is commendable. Go on."

"It's not your god makes us hurt, but the way he died..."

"They think of it that way?"

"It's not a thinking," Uriah differed carefully. "We *feel* it. Hard to explain to a person who thinks in words."

"Fascinating. What else?"

Arin leaned on the altar rail, searching for one simple picture to show the Kriss. "You don't like Elin." The flat statement flickered a readable shadow against Uriah's mask of composure. "Your women can't understand why she wears the same clothes as us, bathes with us, or that she'll fight with us when we go to war. And to us, the strange thing is that your women won't."

The shadow vanished, the mask smoothed. "Impossible, Prince. Bad thinking. Whatever the powers of your female masters, you've never fought a real war. Your women will be as useless in combat as ours. Woman, by definition, is weakness."

Arin gave him a long, curious look. "Yes, that's it."

"What?"

"The difference, or a big part of it. One bit that sticks up out of deep water, I guess. You have a daughter." Arin mangled the unfamiliar word. "If I asked her out on the hill—"

"The hill?"

"For bed, loving—she'd go red as rhubarb all over."

"Of course!"

The man's sudden, uncharacteristic stiffness puzzled Arin, but did not deter his point. "Well, Elin or any coven girl would be happy to go, most times. Afterwards, she'd take you home to her fold and tell how good it was, or if it wasn't so good, you'd laugh about it—because there's always tomorrow and life is—so damned good."

"I see."

"No, you don't," Arin contradicted, serious, "not yet. When the merks bushed us, that same Elin brought her knife to me to be cleaned because of what she had to do to stay alive. I don't know how many men she killed. She wouldn't talk about it. And if you said one word about *that*, elder, you'd make her feel dirty. She might never speak to you again."

Uriah blew on his hands. "Yes, fascinating. You are excellent company, Prince. You will educate me. Consider this, now." He leaned across the railing, thoughts focusing with his concentration on the grim crucifix. "Outside this church the weather is bad and getting worse. The door that faces on it is warped and haggard, ugly as this death you find

so distasteful. But inside," his gesture lovingly included the gloomy nave, "There is this. Death is only a door; *He* is a door, our god. Only through Him may we attain our true life which you call death. This air, this body, this world are not life to us but a testing ground where He heats us on the anvil of our days and works us to the desired shape. The tempered steel will last, the shards will fall by the way. Everything in this false world is a test for the real world of the spirit."

The voice neither harangued nor pounded nor rose and fell as with an old, tiresome lesson, but proceeded as soft music, note by note, over a melody as inevitable as it was profound.

"Nothing that is not a trap or a step upwards depends upon the choice of the free will. Thus we store against winter while you merely live. Our women beget children in duty while yours are the accidents of pleasure. Thus we feel obliged to receive anyone who will believe, while Circle remains closed. Your faith and mine are the beginning and the end of a long line of faiths that grew in a circle from where they began: the believers in God—and those who followed other powers—what you call the gods of earth and seed. They are not Him. You are many, we are few. There was a time when we outnumbered you, when this whole land worshipped like us. Circle was a remnant, then, isolated little bands of disaffected souls—just as our own faith survived in small groups of plain folk in an earlier time. An age-old balance, Arin: it rises and dips and rises again. For the thousandth time, people were exhausted and disillusioned with the bankrupt creeds of spirit no less than materialism. From luxury and easy, they fell to famine that shifted the world's balance of power, made the last criminally stupid mistakes that lost the west, saw the Jings come and go and leave nothing but their seed and a few words of their language.

"The creed of personal salvation was a farce then. What good a savior who promised later when the need was now? Many experiments were made, practical plans based on what people remembered of a vanished way of life, many different types of government and belief and even different traditions of witchcraft—Circle, if you will, but only those circles that dealt directly with the earth survived, the earth was all that mattered.

"It seemed to satisfy the enduring need to be united with something greater than self, the ecstasy of apparent release into the spiritual whole, even if the contact was merely flesh to flesh. But flesh is a mask over vision, like an eyelid." His voice had fallen to a husky, persuasive whisper. "Something remains that is not eased, not fed, not soothed of pain. That splinter of creation, the lonely, fragmented *I* with its unanswered needs—and its burden of guilt. In the end, the man who does not reach to *Him* at his center is trapped outside the door in the cold, and ultimately, like the laughter of wolves, he hears the meaningless echoes of his own voice in the void, calling to a silence like stone, and only the silence can answer."

Arin looked skeptical, but Uriah pressed his point inexorably. "We are born with a sense of our imperfection; it must be so or why do we—you and I alike—grope in our different gods for a perfection beyond us? But here is the difference, Arin: in the ecstasy of Circle dance, there is balm and consolation, but no cleansing or absolution. Only *here* may a man unburden himself of sin, purifying himself of the filth of an unclean world even as he moves through it."

Uriah caught Arin's flicker of doubt. "I know," he said in genial admission, "you're young and vital. Your days are an unspent treasure. You say, with the blood singing in your

veins, that life is good. *I feel* good, therefore *I am* good. What could I possibly do that is a sin? But is the question honest or even self-observant, Prince? Let me see."

Under that scrutiny, gently merciless as Edan's, Arin felt self-conscious and vulnerable. "A good face. Intelligence and simplicity. Profound combination. A strong base with infinite room for growth. What else? Pain, yes. Very new, but there. Eyes perhaps not quite so unquestioning, mouth not quite as soft as a year ago. New burdens, new regrets. Orders that had to be given. Sacrifices . . ."

That deep-flowing voice was like heat drawing infection to the surface of a wound, the persistent dreams of Holder and the cold stars, the death of Sand and Teela, the unrelieved weight of choosing and choosing and never knowing if he was really right; of the worm-thoughts that pulled him further and further away from his own people. He opened his mouth to answer and perhaps affirm Uriah's judgement, when the clear voice doused him with insight icy as it was true: *all men carry this burden, ask these unanswerable questions.* Garick walked alone not only because he couldn't love Jenna, but because he had chosen to think and act for himself away from the usual paths.

Arin's mind teetered over the abyss to which the thought led him. He recoiled physically from it, moving away from Uriah. "You've painted a clear picture of your ways, elder. It's enough for now. It's just as important to know how many men you can promise Garick."

"That must be decided by all the elders. We'll talk again tomorrow. Come early. You are disturbed, Prince?"

"No," Arin kept his features blank. "Good night, Uriah."

The green robe faded down the darkness of the nave and was gone. Uriah sank down onto a bench, frowning in reflection.

"Sacrilege!"

He raised his head at the voice. An old man—bald and beardless, his loose-fleshed neck sunk like a buzzard's into the cowled throat of his robe—appeared from the small vestibule to one side of the altar.

"Were you there all the time, Joshua?" Uriah asked.

"And listening," the aged elder confirmed, his watery, red-rimmed eyes glistening with indignation. "You brought that heathen into the church. To the very altar—"

"And disproved a silly myth. They do not choke or burst into flames at the sight of God."

"But he was discomfited. He was afraid."

"Perhaps. But he came." Uriah turned back to his own thoughts. Joshua loomed over him like a judgement.

"You are devious, Uriah, and proud of it. The most powerful elder we ever raised. We have called you Proselyte. Why do you break tradition, bring that filth to Salvation, even into the church?"

"Because I need to *know*." Without rising, Uriah's voice suddenly bore an edge. "If I've learned more about them than my predecessors, it's because I've tried harder; because I'm *willing* to learn; because, like Garick, I will buy men when I have to. A year ago, by every report from Charzen, that heathen in the green robe was an undistinguished lout drinking his way to a cipher of manhood. Look at him now—tough, committed and shrewd as his father. Twenty years ago, Garick was an easy-going apple farmer. Next year—between crops, more or less—he plans to change the world. He's made a very capable beginning. Make no mistake about Garick: he won't let his heathen traditions stand in the way of his very modern ambitions. You will not conquer or

convert such men with a passage from Scripture. What policy would you pursue?"

"But if their corruption infects us?"

"What do you mean?"

"The whore who came with them. Jacob turns to her. The women are talking already."

Uriah was without expression. "And?"

"One word to Jacob's family would keep her locked up with her own."

"That word will only come from me, Joshua."

"You are too tolerant!" the old man raged, his mouth flecked with spit. "Dangerously so."

"Tolerant?" Uriah rose, preoccupied. The old man's vituperation was something heard at a distance like the chattering of birds. "It is not written, 'Thou shalt not suffer . . . ?'"

"It is," said Joshua. "Let you remember it."

"Yes, but for the time, we know nothing of Jacob and the girl." Uriah knelt at the altar. "Come, pray with me."



ERHAPS THE CONFLUENCE OF LOOMIN and the traditional birthdate of the Kriss god jostled Uriah's sense of charity. Arin was invited to breakfast at home with him, the first shade of personal sociability in their odd relationship. Uriah's house lay next to the church; at the appointed time, Arin crunched up the ash-strewn path, noting the evergreen nailed over the door in a wreath arrangement, part of the holiday's insignia.

He had listened politely to the story of the miraculous birth of their god. It was an uphill fight to understand it, since the word and the concept of *miracle* were totally alien; nevertheless, the tale struck in his mind for its sheer ingenuousness, and Arin recounted as much as he grasped of it to his Shando. There was this girl who had never had a man, and one day she was working in the fields or something when a shape-stealer, a powerful master, appeared and said she was pregnant, and then disappeared again. *Just like that?* So they tell, and sure as frost she birthed when her time came.

"Sneaky," said Elin. They all thought it unlikely. No one was very interested.

Arin was admitted to the house by a sallow girl of about fifteen. She would not look directly at him but scuttled away as her father came in. Uriah led Arin to the kitchen where, in the ample warmth of a coal stove, they sat to a frugal meal. The room was drab; beyond the ever-present cross, the elder's house was unadorned as his person. Arin took his place in bemusement. The table had been set only for two. The women crept around the periphery of their meeting, trying not to exist. Uriah named them like possessions.

"The girl is Mary, my youngest. That is Miriam, my wife. She works slowly today. Her head aches," he signified the malady common to Kriss women. "Pills have no effect any more."

Miriam's face was drained of color. She went about her duties at a snail's pace but never paused or sat down. Arin had the impression Uriah would have disapproved. "My older son Jeremiah is on pilgrimage," Uriah said, but was deliberately vague concerning his whereabouts. "It is a journey of the spirit. He goes where he must."

"Bless him," Miriam ventured. It was her first utterance to Arin, that bleak visage lacked the love to bless anything.

This morning Uriah seemed generous. If the Kriss joined Garick's cause, they would ask no money beyond restitution

to widows. The proposal was too good not to have its price. Kriss soldiers must be under Kriss command. Arin agreed. With few weapons or horses, they would be best employed as support troops.

"And," Uriah added, "we desire to begin religious missions among the Shando and Karli."

Arin stalled, played with his fork, commented on the well-fried eggs. He had no power to grant a concession like that. Uriah was delicately insistent. "Nevertheless..."

Arin strained to parry that agile mind. *When you give something away, the worm whispered, make a profit on it.* "You could come to Charzen and speak before our masters. I could promise you that."

"And how safe would I be?"

"As safe as I am here. But in return for that..."

Something like warmth twinkled in Uriah's appraisal. He chuckled drily. "Ah, yes—your price?"

"We go into Lishin as soon as possible."

The chief elder drank his tea and took his time before answering. "Three people went in thirty years ago. One of them was Garick's first wife." He dropped the question off-handedly. "What were they looking for?"

"She never said."

The understanding of gamblers passed between them. "What will you look for?"

"Call it the difference between a long war and a short one. Send a man with us if you want," Arin's glance shifted to Miriam by the stove, "but for now—"

The clang of metal interrupted him. Miriam had dropped a pot from pain-weakened fingers. With a little mew of misery she sank onto a chair, head in her hands. Uriah called Mary. The child sidled in, took several tablets from a jar and drew a mug of water, but Miriam waved them away. "They don't help anymore." She appealed to her husband. "I should lie down for a while."

"Very well, if it is so bad."

The coldness made Arin cringe. "I think I can help her, Uriah."

Miriam shook her head. "I must bear it. Suffering is natural."

"So is sleep," Arin knelt by her. "If you could sleep and wake without pain, would that be unnatural?"

Uriah was courteous but adamant. "Prince, you must use no coven herbs on her."

"Only my hands. And Mary's. Will you help, Mary?"

With Uriah's assent, he lifted Miriam and followed Mary to a bedroom bare as the kitchen. Like Garick's and his own, the room contained, in addition to the bed, a plain, sturdy work table littered with papers that Arin itched to peruse. He stretched Miriam on the bed and undid the headdress that hid all but her chalky face. While Uriah watched in the doorway and Mary assisted, Arin turned the woman on her stomach.

"Rub her back up high between the shoulders," Arin instructed the girl. "Keep moving, easy...easy. Miriam in a little while you're going to be asleep. All we're doing is smoothing out those muscles. They're all knotted up like a fist. Shalane—my wife—did this for me all the time. Going to sleep, wake up fine."

His voice lulled, vowels soft and crooning, while his fingers kneaded at the hard mounds of tension. "You have hair like my mother, but hers goes all the way down her back. Breathe deep, now. You're sleepy already; going to do some fine dreaming...where's the pain now?"

"On top," she murmured softly. "In front."

Marvin Kaye/Parke Godwin

With Mary's help, he turned her again, bending close, massaging temples and forehead, noting the gradual relaxation of the tight lines around her eyes. They focused more clearly now, drowsy but still wary of surrender to him, distrustful and even more curious. Even young, Arin thought, she could not have been desirable; the mouth gathered by decades of habit into a grimace, rigidity of spirit that held in check its own natural outpour as their bodies would not release waste. He let Mary help as much as possible to ease suspicion, but imperceptibly, Arin bound Miriam's concentration to his.

"...and my wife is a Karli Girl. We were married, you call it, just before I came here. When I think of her—close your eyes if you want—it's how her mouth is all front teeth like a happy squirrel when she smiles, and her tabard's never straight. The tabard? It's a sort of robe without sides that we wear when we become masters. There, now...there..."

Her eyelids drooped over the widening pupils, totally relaxed. He knew the pain was gone, but Miriam fought sleep with its loss of control even as she opened cautiously to Arin.

"Now," he spoke to the silent gratitude in her eyes. "There's no more pain."

"...no." She drew a deep breath, nestled like a child against his soothing hand. As his palm trailed across her mouth, Arin felt the tiny contraction of her lips in a furtive kiss. Now was the time to find the door he knew was open in her, not to grasp but touch delicately, define, shape.

It was a mistake; to find Miriam, he opened himself. The brutal impressions battered him with a sudden virulence that shook him physically and broke his concentration. Miriam's eyes snapped open. "No." She shrank away from him. "Husband, get him out of here, take him away! He has wretched me." Her finger pointed like a knife. "Sorcerer! Son of the devil!"

She sat up, rigid, still shrieking at him, features drawn tight with loathing. Stunned, Arin could only stare as young Mary crossed herself in protection. Uriah led him from the room. Arin was too confused by what he had seen in Miriam to note the satisfaction like winter light in the chief elder's face.

But before the fear, there was that kiss out of a memory of need until something whipped out of the dark to tear it away, deny it, twist the mouth into that mask of fear. Hunger—but a hunger so long denied it no longer knew its object and damned it with a force capable of murder.



HEY MET IN THE WARM STABLE set aside for Shando horses, safe since no Kriss would come near it. Jay came by a cautious route from his duties at the church or soot-grimy from the mines to watch Elin feed and curry the skittish, small-headed mare. Her movements were unconsciously sensual. She stroked the white-blazed nose as if nothing else in the world were quite so important as that the care in those long brown fingers should be lavished on their object. Loving her was once an unrelieved torment; possessing her now had shaken his world, and there was nothing in it that did not lead to Elin.

"I think she understands you," he said.

"She's like me. Likes to be rubbed and fussed over, loves to run. Likes to touch noses with a boy horse now and then." Elin leaned past the horse's nose and kissed him, lips and tongue teasing and promising with the same caress.

If the Shando men were miserable and Arin a stranger, at least she had a little happiness of her own and couldn't let go

of it. No one ever needed her so much before. She tried sometimes to put it in words—the wonder of having him inside her—since Jay had no lep-sharing, but any mention of body-loving made Jay uncomfortable. She sensed his mixed feelings though his body more than satisfied her. He was fiercer in love than Arin, as if trying to touch the deepest part of her while tearing himself away from something that held him back. She wondered how the women of this place related to men. Frightened mice, she had only contempt for them, but part of it might just be how the men treated them.

"Women here walk like they 'spect to be spit on. Why Jay?"

"In our religion, it was woman who let sin into the world. She is stamped with it. And men, to have children, must sin with her. The man must take responsibility for her weaker soul and come to her only when bidden by God."

So baldly said, Jay knew he no longer believed it, perhaps never had. That arid absurdity had nothing to do with Elin and him. He had to explain it twice. When Elin finally grasped it, she threw the curly cloth at him with a hoot of derision.

"Well, if that ain't some kind of unfair! What's she 'posed to do while y'all waiting around for the word, huh?" Elin turned away and gave her tenderness to the more deserving mare. "Way these women birth, old god must keep the men running sunup to suppertime, look like." Softly, then: "Am I a sin, Jay? Never even heard that word till now. Am I a sin?"

"No, not you," he cupped her breasts under the green robe. "It's different with us."

"Don't lie to me, Jay. Don't lie when it cost so much to find you. It's not I've had so many men. You think I put you up against them. Against Arin."

The honesty was painful. "Yes. And I hate it."

"Oh, Jay. You lived Circle, didn't it learn you at all? Young people go out on the hill when it's time, because that's all they need then, to get it out of them. And I did," she affirmed with a pleasurable grin. "And I can't be sorry for any man I ever had, because it showed me what I want. *Me*, Elin." She looked sadly at him. "I bet you hated yourself a little for every woman you touched, even me. So who's lived better, Ja-cob, you or me?"

She was always right, instinct defeating intellect with no effort at all because, ultimately, what had been a way of life for his people was a lie for him. All but the sense of God: that would never leave him.

"I hate you sometimes."

"I could kick you, too." Elin held out her arms. "But come to me."

**T**HE SPARE YOUNG MAN in merk leather had ridden a hundred miles and looked fit enough to do it again on a bowl of soup and three hours sleep. He resembled Miriam more than Uriah. The hard, prominent eyes were stamped with eternal certainties but lacked the intelligence that raised conviction to insight. Jeremiah ate noisily, paying scant attention to the hovering affection of his mother and sister. When the women had cleared the plates, Uriah dismissed them and spread the wide table with maps.

"Garick has two alternate plans," Uriah said, "but I yet know their pivot. If the main strike against the mercenaries is to be north or east, the covens will gather here, east of Karli. If south, at Charzen."

Jeremiah chewed a knuckle in thought. "Why south?"

"Could they enter City there?"

Jeremiah smiled at his father's uncharacteristic naivety. "Forget City. Numbers mean nothing to the Self-Gate. The only way in is to deactivate it from inside. Garick knows that. His strike, when it comes, will be against our companies. It will be a cavalry war, and once we lure him out of deepwoods onto open ground, it will be over."

"What's the money situation in the companies?"

"Desperate," Jeremiah answered. "City still has no new contract for them. The men are all looking for sub Callan, because he's got the drag money."

"They still think it comes from City?"

"If they think about it at all; they don't care. It's hard for the commanders to keep them together with so little money coming in. That's why Bowdeen—" Jeremiah broke off with pent disgust and changed the subject, bending closer to the lamp-lit map. "One thing must be considered in advance: the Wengen."

Uriah tapped a point on the map. "The iron-makers have asked how we stand on Garick. They don't want to lose our coal. I've advised them privately to stay out of it."

So much was foregone, they both agreed; with coal at stake, and the iron men more Mrikan at heart than other covens, they were no danger. But the western Wengen were all Circle, with blood ties to the Karli. The northern division of companies *must* keep them plugged up, unable to reach Garick: easy as long as they money flowed through Callan. Uriah agreed absently, his concentration on the map. It was not a power see-saw between himself and Garick, but a triangle with City at the apex. City must stay neutral, unconcerned and uninformed.

Jeremiah shrugged. "I intercepted Garick's letter, didn't I?"

"He might have sent more."

"He didn't. If he does, I'll get it," Jeremiah was confident. "That's where part of your money goes."

Uriah mused. "Who are they in that City? What are they? What do they want, what do they do, how do they think? Who leads them? Does anyone know?"

"I've bought what I can," came the flat answer. "The power of our money stops at the Self-Gate." Jeremiah paused, then sat forward suddenly. "No, wait. Something. An idea. A long time ago, when City last sent revised orders to the guard at Balmer and the other through-points, they used a little box that works on sun power, don't ask me how. Their orders are recorded on a thin ribbon. You press a button and it talks to you. I used to play with it a lot, all of us did at first... City magic, father, something so different..."

"Go on," said Uriah.

"Last month we got the first new ribbon any merk can remember, a warning about the throwers we found outside the Gate. City won't tell us how they're used, but it's not hard to figure. Anyway, both ribbons, they're the same voice. That last order ribbon is *eighty years old*. Last time City talked to us before the thrower warning—and I swear it's the same voice!"

"What's he sound like?"

"She. Mature, but not old. Very clear, precise, you couldn't mistake it." Jeremiah's voice trailed off in puzzlement. "But it can't be the same woman..."

He was not prepared for Uriah's benevolent reaction. The smile was full of satisfaction and even a gleam of excitement. "Yes, it can, Jeremiah. And you've just given me what I couldn't buy." He pushed the tea mug away and leaned

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across the table. "My predecessor had a spy in Charzen—unreliable, something of a drunk—who said that Judith Singer was over three hundred years old. We laughed. He swore it was true; we laughed harder. But I won't laugh anymore."

The young man's pale, protruding eyes widened in disbelief. "No, it can't be. How can anyone live that long?"

"A pragmatist's question, Jeremiah. In this pigpen of a world, it's not *how* but *why*." An odd pleasure shone in Uriah's cold smile. "Learning is more delight than knowing, and what have we learned? Fact: an informer claims a City woman who looks twenty is actually over three hundred. Fact: you identify the same, unchanged voice on two ribbons made eighty years apart. And *fact*—" the hard white fist came down on the map. "Judith's husband shows a quantum leap in learning and political insight that leaves every other god of Circle groping in benighted wonder. And cap it all with what we already know, that Garick's other son, by Judith Singer, is being held prisoner in Charzen. No one knows why."

Uriah flexed his shoulder muscles with an almost youthful energy. He grinned at his son. "Urian was David's soldier, son. He asked nothing more than the battle, and neither do I. It's a joy to know that I'm up against the best."

The flash of warmth passed quick as it came; again Uriah's attention was wholly absorbed in the long, long crescent of City on the map before him. "Then Garick knows and wants a great deal, but the whole thing is pointless unless he can get into City. How... how?"

"The Shando hasn't said?"

It was Uriah's turn for strained tolerance. "Our talks would exhaust that little patience you have, 'sub Callan'. We bargain like misers. Clever man, and I would say admirable. He's described something of his training to me, the way of the masters. The whole being, body, consciousness, is considered inseparable, forged into a tool of the will. Clever. And disciplined."

The room was warmer: Jeremiah took off his leather jacket and rolled the sleeves of his wool shirt over mine-hardened knots of muscle seamed with old scars. "Clever? He's more than that."

Uriah ignored the remark. "What about Hoban? Arin gives the impression the Karli are with Garick."

His son drew a line of crosses on the map. "My man in Karli took weeks to report. Officially, Hoban said no. *Unofficially*, the war has already started. Look."

The north-to-south marks indicated the Karli's eastern frontier now patrolled by their bowmen. "Hoban's turning us back and shooting if we don't. We can't just walk in any more. The men drag with full equipment now. We've been losing too many. Again," he glanced up at his father, "money: up the bounties all around. Now, while Hoban's masters are still split on the war issue."

"How split?"

"The young ones are for Garick. Logical—one of them is Arin's wife. Well—" the small mouth curled in contempt—"his whore, anyway."

"An interesting point of language," Uriah sipped his tea. "Neither word is current in their dialect. She is 'with him.' Mystical but vague."

"Father, will you let that dirt ride out of Salvation?"

Uriah was occupied with the map and his own questions. "Oh, in time—I suppose."

The mug banged on the table. "Let him go free?"

Jeremiah suddenly was fixed with a gaze as hard as his

own. "Nothing is free." Uriah tapped a forefinger on the map. "Arin didn't say how they'd get into City, but he did say—Jeremiah, are you listening?"

"He's a murderer. He murdered Micah."

They stared at each other. Wind rattled the shutters.

"Murdered," Jeremiah said it again, carefully. "The company that bushed him was mine."

"But you *knew* they were coming. You knew Micah's mission. He knew yours."

"Micah didn't expect the company to be operating without me. Bowdeen called for money, so I came to get it. It was safe, because the route for Micah was well west, but Arin zigzagged east every ten or fifteen miles, close enough for Bowdeen to pick up his trail and bush him on a bald top. The logical move, it was all too *damned* logical. It went wrong because everyone did the right thing. Micah walked right into it. He was meant to. Bowdeen said he waited so long after Micah was shot, the hawks came down for the body. Arin waited just a little longer." He appealed to his father. "Bowdeen said he came out on that bald top singing a hymn."

Uriah regarded his hands without expression. "I know the song. It was his favorite."

"If you love me, father, don't let that witch leave here alive."

The answer came from a cool distance. "I love you, but I love God more. Vengeance is useless to me unless it serves His purposes. Learn that lesson, Jeremiah. Learn the kind of soldier He needs. Buy, use, bend, plan, cheat—all *all*, learn and know the *world* you would conquer for Him. If some of us are defiled by it, the end will cleanse us. So much for love." He returned to his study of the map, searching out one last elusive fact. The difference between a long war and a short one..."

"What?"

"Arin wants to go into Lishin."

Their glances met and understood each other. "In the spring, you mean?"

"Certainly not before. Judith Singer went in for a reason, so will he. There's something there that Garick needs. That's what I still need to know. Until then, one way or another, Arin stays here." The elder rose and brought the teapot from the stove, eyes cloudy and closed around the complex of strategies.

"But Micah—?"

"I cannot prove Micah, I cannot use indiscriminate moral rectitude. It has no edge. See what I mean by use, Jeremiah. They are free to go where they please, unless—as we will shortly discover—our laws have been broken. A capital offense. Fornication," he answered his son's unspoken question. "One of theirs and one of ours, a young man for whom I had great hopes, the rare kind from whom God is an almost physical need..." Uriah fell silent. An observer more sensitive than Jeremiah might have guessed him troubled. "As yet," Uriah refilled his mug, "we know nothing of it. At the right moment, of course, we will be collectively outraged. During the trial, the Shando will be held in protective custody. Arin will have to consider the safety of his people. He'll take whatever I offer. When I know what is in Lishin, he will be released to go there... in the spring, like Judith Singer." He reached for Jeremiah's mug. "More tea?"



N THE DIM-LIGHTED CHURCH, Uriah knelt at the altar between Joshua and the huge bulk of elder Matthew. *Engulfed*, he considered with cold distraction, *between the pebble and the rock of ignorance*. His mind raced impatiently beyond the familiar prayer.

"—And he that turns from belief shall see Thy back at judgment and know Thy power even over darkness. Amen."

Joshua raised his brittle frame, wheezing with the effort. His bleat of surprise made Uriah and Matthew whirl to see the lofty figure midway down the darkened nave.

"You did not knock!" Joshua admonished. "We did not hear you come in."

"You never will," the figure moved toward them. "If the deer heard us coming, we'd never have meat."

"Shando," Matthew boomed ominously, "you do not enter our church without permission."

"Forgive this one last time. Uriah, I have to see you. Your elders can hear if they want, but..." The trailed meaning told Uriah his best interest lay in privacy.

"Elders," he touched each on the arm. "Please wait for me in the vestibule."

When they were alone, Arin took a breath. "We're leaving, Uriah."

The chief elder toyed with a candlestick. "Surely not now; it's the middle of winter."

"Inside of three days, I'll need a written record of all we've agreed to. You'll have the same from me."

"But not now. These mountains are impassable until spring."

"Uriah." He heard the edge of tension in Arin's voice. "I'm not a fool."

Uriah put down the candlestick. "No. I would say folly is the least part of you, Prince Arin. But why?"

Arin sat on the railing, arms crossed. "You wouldn't understand. My folk are miserable. Away from what they know, they die a little every day."

"And you?"

The careful smile turned chill. "Call that a gift from you, one of your blessings, I'm finding out what a big, strange world it is. No matter how far, we've never been apart from Circle until now. We can't even touch our own here. Now I know why." He continued to scrutinize Uriah like a form of insect.

The Kriss found it difficult to contain his irritation. "I don't think that's all of it."

"You hate me. I've never hated anyone, not even the merks. How can you live like this?"

Uriah turned on him a composure frigid as his own. "You find that unwholesome, do you? I am called Proselyte, Arin. An honor for which I spend most of my life with my spiritual arms up to the elbow in garbage. For my faith. For the love of God."

"Love's not a word for you. You don't have any." Arin pushed away from the rail with a weary disgust and started down the aisle. "Not for your woman—and she knows it—not for that sad, sick child, Mary, not your people, not even for yourself. You're cold as Grannog, Uriah. And I'm sick of winter."

"And yet we have a great deal in common, Prince."

The voice stopped Arin, a knife-edge of sound. "For all your talk of warmth and love, and the sweaty self-delusion of your Circle, you have the makings of an exquisite bastard. You find coldness in me? I see it growing in you. It's not easy to carry a king's mission in this world or the next. And we

both know that heroes have bad dreams that never find their way into songs."

"Three days, Uriah." The door closed.

Matthew strode out of the vestibule like a gathering storm, Joshua muttering at his elbow. "Did you hear what he said to the Elder. No one, no one has ever dared such—" Joshua leveled an I-warned-you finger at Uriah. "This comes of your 'improved' policies, your 'broad, inquiring mind.' They should never have been allowed—"

"Be still!" Uriah spun on them, wiry with purpose. "Joshua, bring all the elders to my house. Have them there in one hour. Matthew—"

"At last," Joshua breathed. "It happens."

"Gloat later, Joshua. For now, act. One hour."

The old man hobbled down the aisle and out of the church.

"Matthew, a guard of thirty able, armed men will be formed tonight and relieved of work in the mines until further notice. And," Uriah gripped the altar rail, head bowed in thought. The wood creaked under the press-and-release of his strong fingers that shook with cold rage. "And a watch will be set tonight on the Shando stable."

"Finally!" glowered Matthew.

"It is time," Matthew clumped down the aisle. "Long past time. She is a blot on—"

"And, Matthew."

"Yes, Proselyte?"

"At worship tonight—in a casual way—let Jacob know they plan to leave."

**H**E THOUGHT in the breathless beginning that he would have to atone for the crime of being content and filled with Elin. As time went by and Jay lost more and more of himself in her, the need for atonement fell away with the vestigial sense of guilt. He dared the happiness and felt no pang.

In the warm, dark stable, when they lay on their pallet, sweaty and close and breathing slowly again after love, he told her more and more of his life. How did one accept what one was born with? Elin didn't accept Circle; for her, it simply was. So with his own faith. Only as he grew older, a sense of something wrong or incomplete nagged him like a splinter under a thumbnail, and he went out to Circle to see how other men lived. He was certain of the presence of God but no longer complacent that the cross or his people's way represented all of reality, nor that the way to God lay in the rejection of everything else. The openness consumed him, made him inarticulate. Lying with his mouth against the curve of Elin's breast, Jay could no longer feel fear or jealousy of her life or the men before him. They merged into the colors of the gift of herself as she lay in his hands, and Jay felt at times that he could love Arin for having been a part of her. He had grown a little.

But it could end in two days.

"I could stay here with you." Elin tried to sense his thoughts, but leap-sharing didn't work beyond Circle, not even if you were with someone. "What's that word? We could go to the white house and . . ."

"Be married?" She understood so little. "It wouldn't work, Elin. You could say the words, but they'd mean nothing to you. And the women wouldn't want you."

Elin tangled her legs with his. "Then come home with me."

His head shook wearily with the impossible, worn choices. "And stand outside the circle at Belten or Samman, never a

part of it? I tried. You're Circle or you're not. A mind can change, but the rest, that's all of your life, Elin."

She laughed into the hollow of his throat. "Well, we can't stay here with the goddamn horses."

"Hey, there's a family: you and me and six dumb Shando horses."

"And they all look like you."

"Except they have your nose," he kissed it. "Your freckly, freckly nose."

"Half horse, half cat."

"But... I was thinking." Something in his tone made Elin apprehensive and hopeful. She slipped over onto his stomach. "What, Jay?"

"That house I built."

"He-ey..."

"No, it's just like you left it. They shared out your crop, but nobody needed the house."

"Good house," Jay remembered. "Three rooms, space for more. Good watering—"

He felt her hard stomach muscles contract against his as she leaped clear of the pallet. "Jay, lookout!" Quick as he was, the shapes moving swiftly in the darkness gave him no chance. He heard the dull blow and Elin's cry before the heavy tool handle thudded into the side of his skull. Stunned, he felt himself rolled on his stomach and the ropes that forced his arms over his back.

Uriah lighted the lamp.

Elin crouched in a corner, covered by Mordecai and another man with ready pikes. The black knife in her hand was absurd against them. Uriah threw her a blanket. "Cover yourself, pig."

More shapes moved beyond the lamplight. Two men advanced on Elin. Her back pressed against the rough boards, she sent the only appeal she knew. *Arin*—

It lanced into his mind as he sat across from Kon, working over the papers that must be exchanged. The pen dropped from his fingers.

*Help!*

Even as they lunged for the door, Magill's eyes blinked open, Hara and Clay swung out of their bunks. Arin yanked open the door, saw the line of waiting men in the moonlit square, then Kon's bulk knocked him aside as the arrow tore into the door behind them.

"We don't have to miss," Matthew shouted. "By order of the elders, you'll turn over your weapons and go with us to protective custody."

## KILL THE WITCHES! KILL THEM ALL!"

Beyond Arin's window, the women wove in a tireless snake, venturing as close as they dared to the guarded church where, in a cellar beneath the nave, Elin awaited execution. Even with senses shut down tight, the solid wall of hate was painful to Airn, chilling as a fingernail dragged across slate.

"Stoning, Prince Arin," said Uriah. "The lawful method in such cases. The woman most wronged under law will throw first. Since Jacob was not married, it will be his mother."

Arin was sick with horror. The nightmarish trial, Elin's frightened eyes always seeking him or Jay, the helpless fury of Jay's frustration—all blurred under the ugly clamor of the women who strained toward Elin like caged, impatient packdogs. They screamed for her death, vicious, reeking of the same soured desires that trickled blackly from Miriam, overriding any hope of mercy. Uriah himself took her defense.

Marvin Kaye/Parke Godwin

The girl knew nothing of their customs, he argued. It would be enough to banish Jacob. But his calm logic was lost under their surging fury. Joshua and Matthew answered with what became for Arin a black litany throughout the ordeal: *Thou shalt not suffer a witch to live.*

They allowed Elin to speak for herself. The halting, stammering foreign drawl only provoked the women to fresh howls. *Stone her! Stone the witch!*

Then it was Arin's turn. "For the first time, there's a door open between our two peoples. Try to understand us." Coveners, he told them, could not divide body from spirit as the Kriss did. To love was to touch, the way of his kind all their lives. He offered to take Jay with them, to leave immediately, make cash restitution, whatever terms the Kriss could name. He saw Jay's ironic smile, grim but pitying his own ignorance of the Kriss.

*Thou shalt not suffer a witch to live.*

"Was not Jacob chosen for the altar?" Matthew roared in the prosecution. "Did he not serve at Uriah's left hand? Was he not chastised before she came? Or was he already tainted from living among them, living as Shando, as dirt underfoot?"

*Thou shalt not suffer...*

"These," Joshua pointed at Arin and Elin, "are creatures of wile and magic. I will not criticize the wisdom of our chief elder—young though he be for such burden—but I say he has erred in letting them into Salvation. I say Uriah, whose wisdom is still only that which God allows to mortal men, has, in his many cares, overlooked the danger of an ill-considered path. Praise our chief elder, and pray God grant him peace and continued wisdom."

"...and it is the decision of the elders in solemn assembly that the sentence of Jacob be subject to a vote of all the men of Salvation, under which, by a majority he shall be cut from the body of the church to suffer perpetual exile or such death as the elders may direct."

"It is their further judgement that the Shando woman named Elin, as the proven agent of sin, be placed within two days in the hands of the women of Salvation..."

Alone in the trial room with Uriah, Arin watched the women. The sickness was a new facet of his education. The Kriss had taught him how to hate. Haggard with strain and the long pleading, he reached across the table to Uriah. "You win. Name it: money, conditions. I'll pay or sign whatever you want for her."

"Easily promised," Uriah demurred. "Hard to collect. Garick would regret the girl, but not so much as a lost alliance."

"Words!" Arin heaved himself away from the table. "Uriah, you can stop this."

Uriah joined him at the window. "Can I? You'll never think or feel like us, Arin. We are an island of faith in a sea of coven; only that faith has allowed us to survive. Life itself is nothing."

"You've survived because you are ringed with peaceful coveners who will not say that life is nothing. Life is everything."

"The way of life," Uriah amended. "I administer the laws, I don't make them. This is beyond me. I cannot even allow you to leave yet."

"Why not?"

Uriah indicated the circling women. "Look at them. Listen to them. You'd never make it past the church. The custody is protective. You can't help that girl or even yourself right now,

only wait for me to repair the damage she's done."

Arin slumped with fatigue. He stared out the window. Uriah returned to his chair.

"Could it be something else, not the women? Something quick?"

"The right is theirs, Prince. Flesh is the strongest temptation. It must be checked by a law and punishment unarguable as the hunger itself. I have no more recourse to wanton mercy than to cruelty. Mercy would imply a tolerance to flesh which cheapens the sacrifice of the spirit."

"You talk like a book. I'm a man. Talk to me like a man. I can understand you."

"Yes." Uriah looked at him with a now-familiar mixture of envy and sadness. "Yes, you can. Perhaps more than the so-called faithful."

"Nothing is free; that's your saying. Alright, what's the price?" Arin tried desperately. "You wanted a mission among the Shando; you've got it. My word as a master, as Garick's son. A house of your own, cropland for your people—"

"Arin," Uriah held up his hand, "it can't be stopped."

"Please!"

"No."

"She's down in that dirty hole, she's scared, doesn't understand half what's happening to her. And I feel her, Uriah. You can't know that, but Elin's calling now, been calling out to us since you took her. I want to shut her off, but I can't. . . . I beg you, elder."

Uriah's eyes were flat and bleak. "I can't afford it, Arin."

The young man blinked. "What?"

"Your people have your needs in this war; so have we. In this tiny place, I answer for almost three times as many people as Garick does. Because more of ours live after birth than in Circle. We need, and soon will desperately need, more land for crops, the knowledge that goes with it, more goods than just coal to export, more money to import. Like Garick, we will need change. Like Garick, I have to fight for it, fight people for whom change is near to impossible. You heard Joshua's very respectful criticism; the chief elder has been misguided. I brought you here against almost every voice in Salvation. I've already stretched their faith in me. If I let her go, another elder would challenge my power and very likely win. Then it wouldn't be just the girl, but all of you." His eyes, though hard, were tired. "Yes, she's a siren, a bone. The price you'll pay to get where Garick needs you next. Don't look shocked, Arin, and spare me your forest philosophy. You brought your way here with Micah. Different dogs, different bone. But you threw it."

Arin dropped his eyes and said nothing. Uriah clipped off the words as if they tasted bad. "I don't blame you; blame is irrelevant. The game is called history, and unless you're an unmitigated, heaven-towering son of a bitch, you're lost. Let the pure take up farming."

Hopeless, Arin plowed agitated fingers through his long hair. "It's tomorrow?"

"In the morning."

"I want to be with her. A few hours."

The elder's consideration was brief and dubious. "I think not. You are masters of deception. Your robes are full of pockets for—"

Arin's fist battered down on the table. "Naked, then, you bastard! Stripped, searched, whatever you want. But let her have one friend."

Uriah stared at the livid knuckles; his expression altered

subtly. "Buy it then. One bastard to another, what is it worth?"

"What do you want?"

Uriah placed his fingertips together. "You've insisted on going to Lishin, but you won't say why. Lishin is ours. We want to know what use Garick will make of it. Something in the old laboratory?"

Arin hedged. "If I promise to tell you, can I see Elin?"

"Tell me now."

"Uh-uh. Half now, half when we go."

"You're not in a position to bargain, Arin. You're in prison and you'll stay there."

"And stay and stay," Arin leaned across to him. "But time passes and snow melts and one day, elder, you'll wake up ass-deep in Shando asking questions you're not ready to answer. You can't hold me forever, and I don't think you want to. So half now, half when we leave." He couldn't hope Uriah would swallow it whole, but there was just enough truth to give it weight.

"All right, you can see her. Now, what's in Lishin?"

Arin nodded and rose. "A map with three circles drawn on it. And that map is going to open City for all of us. It's the only thing that can."

"How?" Uriah pressed. "A map of what? Where?"

Arin paused at the door. "That's the other half. I'll send word when I want to see Elin."

"Stripped," said Uriah. "Searched. And in clothes I will provide."

"I'd feel a little dirty, elder. Just a blanket."

**I**T WAS NO SURPRISE to the disenchanted Shando that Salvation had a house set aside for punishment alone, an unfurnished one-room hut with a fitfully efficient stove. They set Clay closest to its warmth, because he had fever and still slept poorly. They all looked sallow and sick, Arin thought, exhausted himself to the brink of tears with the compassion of a leader powerless to help his people. Elin whispered into their minds, a ghost already mourning its own death. *It's tomorrow morning.*

"Garick will be all over this place," Hara judged bitterly.

Magill turned on him sharply. "That won't help Elin."

Arin rummaged among the few possessions Uriah had judged harmless and extracted a thin red Lorlcloth shirt, a present from Shalane. He began to pick at the hem with nimble fingers. "I've done what I can. You hear those women in the square. Right now, Uriah and his guards are all that's keeping us alive."

Dangerous, quiet, Magill asked, "What about Elin?"

Arin pulled at the loosened threads. He spoke carefully, bent over the task. "Nothing's free, Gill. If we can't get to Lishin, all of this is for nothing."

Magill didn't move. "And Elin?"

"We can't help her. Except for one thing." Arin fingered the edge of one of his blankets and ripped a small opening in one corner between the thicknesses. They watched as he withdrew a small moleskin pouch. "They'll strip me bare before I can see her, but they won't find this." He regarded the pouch. "Call it sleep. An easy sleep, even dreams."

"You gonna do it yourself?"

Kon warned: "Gill . . ."

Arin's expression was hard for them to read. "It's me or the women."

Magill stood frozen over him a moment longer, then turned away, cocked and tense. "Guess I'm pretty dumb. Thing

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gotta fall on me before I know it's there. Been around Elin all my life, rode with her, been on the hill. That's...that's some kind of woman, Arin. But there was that damfool Jay, and before that, there was you." He came back to stand over Arin. "Rode with you fifteen years out of twenty, never knew you, either. You a strange kind of master, Arin. Ain't done nothing but get people killed."

Arin rose, feeling his arms begin to tremble. "Get off me, Gill."

"Think Elin don't want to live? Read her now, listen to her."

"I hear her." They faced each other like drawn bows.

"You gonna get her born again, Arin? How many more of us you gonna bury?" The enumerating, accusing fingers stabbed in Arin's face. "Holder, Sand, Teela. Now *Elin*, you coldblood sonofabitch—"

"Get off!" Arin's open palm shot out catching Magill under the chin. Magill shot backwards across the room fighting for balance, but Arin was on him before Hara or Kon could intervene, battering brutally about his face and body. Kon tore him off while Hara held the struggling Magill.

"Lemme go," Gill raged. "Get off me, lemme go!"

"Hold him, Hara." Kon wrenched Arin around, slamming him against the wall. "Stop, Arin. Hold now." Arin tried to twist free. Kon's open hand smashed across his face. "Stop!"

They held the two men apart. "All right!" Arin's breath exploded in a sob. "I'm *not* much of a master. Had to learn too much too fast and done all wrong since. Wrong, wrong, wrong! That what you want to hear, Gill? Sure I read, Elin, been reading her all along. I begged that Kriss bastard—money, anything he wanted. More than Garick would pay. I couldn't save her." His hands went out to them in supplication. "I told that girl, I warned her. What I gonna do, tie her to a tree?" Arin wiped his red eyes. When he could control his voice, the hardness surprised him. "Garick used to say you get what you pay for. All right, Garick gets his goddamn Kriss, five of us live, one dies, that's *it*. Now leave me alone."

"Five?" Magill wiped the blood from his nose, crying for the ragged end of something torn away and lost. You count four, Arin. They let us out, I go home."

"Hell you will," said Hara.

"Hell I won't! Too much lost. No more."

"Boy," said Kon, "you never did have enough brain to put on a fork. You get the past the merks, there's Karli. What you say to Shalane? Then Garick. What you tell him, Gill?"

"That the rest of us died in Lishin." Clay sat up in his blankets, chalky, shivering with a fresh assault of the fever. "Because it'll happen." His glazed eyes went from man to man. "Night after night since I saw that dead god by the river, I dreamed the same dream. We'll go to Lishin. It'll find us there."

Arin squatted beside him. He felt the dry flush in Clay's cheeks. "Hara, coal up that stove, boil some water. I'll make a brew, Clay. You're sick."

Clay persisted. "My head ain't sick. I see it."

"See what, boy?"

Clay's voice was leaden, old. "No feel, no shape, but it's there. And we're there." He lay back down, staring at no one, at all of them, Magill included.

**R**IN WENT TO THE CHURCH two hours before dawn. In the chill gloom of the nave, surrounded by Uriah, Joshua and four guards, he was stripped to the skin and subjected to an exhaustive search. The guards pawed through his hair and beard, turned up the soles of his feet. They looked into his mouth and rectum, turned him this way and that. Satisfied at last that he carried no poison or sedative to alleviate the woman's just punishment, they gave him a thick blanket. The trap door in the floor of the nave was thrown back. As Arin prepared to descend, Uriah asked a curious question.

"Will she want breakfast?"

Arin didn't know. The humanity surprised him.

"Matthew will send for food if she wants it. He is with her now. He'll remain while you're there."

"Does he have to?"

"I'm afraid yes."

"He hasn't hurt her?" Arin warned. "He hasn't touched her?"

"Don't worry about that," Uriah's lowered voice carried a trace of irony. "Elder Matthew is not the brightest star in the firmament of abstract thought. His weakness lies in a certain spiritual myopia, not women. Nevertheless, he hopes someday to be regarded with a holy vision for his labors."

The cellar had one small window, glassed and barred, flush with the ground. Loose boards were spread over the earth floor. As the ground froze and thawed, mud oozed through and over them. There was no heat. Matthew's surly bulk hunched in a chair near the ladder. In the far corner, as far from him as possible, Elin huddled on a small cot among a litter of ragged blankets. They had not starved her. A tray with remnants of a meal sat on the plank floor near her cot. Washing and other comforts, however, had not been considered necessary. The magnificent hair, grown thick since Charzen, tangled stiffly about her face, and the rich green robe was stained with mud. The cellar had a damp, unpleasant odor.

She rose nervously as he descended the ladder, a wraith half visible in Matthew's candle glare, her rigid frame speaking eloquently to Arin of the numb fear she held back.

He nodded curtly to Matthew. "Uriah said you must stay, but leave us alone."

Matthew shrugged. "I have spoken to her. What use? She was lost long ago."

Elin hugged him close. "Hey, Arin." She giggled at his foolish blanket-wrap, a high, constricted sound. "Don't you look fine." *Help me. I don't want to die.* "How's Jay?"

"I haven't seen him." They sat down the cot. *Matthew hurt you?*

"No." Elin vented a pitying glance on the Kriss elder. "Just talk at me about old dead god till I yell quit."

"Lost," echoed Matthew.

"Ah, shut up!" Her laugh was too sharp and loud, frittering away into a shudder. "Kriss don't get around much; don't know how folks feel." *Help me. Why can't you help me? You're—a master!* she flashed at him. "Where's Garick, where's Shando and Karli to help me? What I do? Nothing!" Elin pointed disgustedly at Matthew. "Gotta sit here and smell him till they come."

"Sit down," Arin pulled her back. *They won't get you?*

He lepped it briefly; they'd searched him, but missed the magic he brought. *I swallowed it*—wrapped in a small,

greased pouch suspended by fine thread from a back tooth. She was to call for breakfast and a cup of something hot. If she took it now, the women wouldn't be able to hear themselves hoot for all her snoring. *You won't feel, just sleep. Arms and legs like wood.*

*So scared.* He saw the panic tighten her jaws. Elin hesitated. She touched the tangled hair, traced a finger along her forearm as if relishing their reality. "Born again—is that true?"

"To the Shando." All his life he had said it with a faith far below conscious utterance. Now he was; painfully aware of the impoverished words. The anger rose in him, a helpless, crippled ghost without hands to do or mouth to cry out that one more thing, one more large piece of him was being torn away by the world and the worm.

Elin lifted her head. "Know what, then?"

"What?"

"Next man I pick gonna be a farmer." She seemed to consider it a moment. "Matthew, y'old horse!"

He was nodding over his candle. "Um—what?"

Elin stretched on the cot. "I'm hungry."

Matthew grumbled and heaved out of the chair, turning to call up the ladder. Arin's hand darted swiftly to his mouth; he retched silently as the pale thread emerged followed by the moleskin pouch which disappeared under his blanket.

The food came with decent promptness, a bowl of grayish substance, hot enough but clearly just removed from a preserving jar. Elin dabbed her spoon in the unappetizing mess. "This looks like I already ate it."

*Drink some tea and give me some.*

She drank and passed him the cup. "But the tea's real good. must have used the goldenrod I had left."

"You always could find the best," Arin drank and passed it back to her under Matthew's scrutiny. His hand held the mug over its steaming top, but Elin alone caught a glimpse of the whitish powder before it dissolved.

*Won't even taste it.*

*Thank you, Arin.* She took a large swallow.

Gradually the trembling of fear and cold ceased. Elin's body relaxed. She took off her shoes and wriggled her feet like a little girl, sheathing them under the blankets. The glaze of terror faded from her eyes. "Lepped you people all day. Felt you."

"We read you."

"You hurt Gill."

"It hurt me more."

"Gill's sick inside, gone from you. Didn't have no one but you'n me and Kon."

Arin stroked her cheek. "You should have taken Gill. He'd stay with you."

"No...no." Elin yawned and slid lower on the cot. "He'd be gone, he's wild like you. Always riding off. You ain't home folks." She took another drink. *Sleepy.* She smiled. "Ma never did know why I wanted to come with you. Tell her... tell Ma it was all right. I'm not sorry. There was Jay."

She plumped the pillow roll and lay down. Arin tucked the blankets around her. "Should've got to Jay in Charzen," she breathed softly. "Not my fault I didn't, but hooee," the thought was spaced by another luxurious yawn, "that boy did learn quick." Elin opened one eye, tender and mischievous. "Better than you, master Arin."

"I guess."

"Tore me up six ways from injun." Elin sighed with drowsy pleasure. "Would've had ten kids, I'spect." *Can't feel my*

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*feet and hands.*

*Don't fight, Elin. Let it work.*

Elin yawned again and stretched her whole body. Then, as if reminded of something important, she raised on one elbow suddenly and barked: "Matthew!"

The Kriss reared like a startled bear. "What? You wanted to be alone. I don't want to talk to you. What is it?"

Elin rewarded him with a smile devastating as it was innocent. "Y'all don't forget to call me when it's time."

Matthew warmed his hands over the candle. "It will be soon."

*Will you be close, Arin?*

He would. The brown fingers, no longer able to feel, groped clumsily for his.

"Then kiss me goodnight."

The candle guttered. The narrow window grayed with early light. Matthew rubbed the need to sleep out of his eyes, massaging porcine jowls, and lit another candle. The girl was asleep. Arin hunched at the foot of the bed, head bowed over his knees, still holding her hand.

Had too often folded into the warmth of Elin's spirit to forget the way. She slept, a tiny curve of smile on her lips as his energy clasped about her for the last time. The coils went out as they had to Singer, but softly now, lovingly, to twine around Elin like bright ribbons about a handful of flowers. He thought his power might not be enough, but it was there as in the forest before Karli, plenty to spare, and though it drained him, it had to be given. The heart beat against his, the young blood sang through the healthy veins. Arin curled tighter. Her heart and blood, without laboring, seemed to tire in their action, the dreaming mind paused.

She was on a riverbank. The sun was shining and Elin hesitated midway between Jay and Arin. Both of them called her. She must go to Jay because he needed her, but somehow Arin must be touched first, like the god at Samman circle. Jay would wait, she'd just be a little time. She ran to Arin, but he looked too sad and thin because he never did eat enough. For the last time she nestled in his arms and found them full of security and peace.

*I have to go, Arin.*

He still held her close. The arms stretched out around her, holding, slowing, a gentle breath blowing out a small candle. The heart thudded softly like blood in the ear, slowed, slowed...stopped. The blood stilled and the dream darkened.

## D EAD, MATTHEW. TURNING COLD."

In the garish, smoky light of the torches, Matthew's small eyes bulged with astonishment and fright, the chief elder's accusation boring into him. "Elder, I swear! She drank nothing but the tea. He even had some. They just talked. She lay down on the bed and—" his slow mind grated against the absurdity—"told me to wake her when it was time. They just talked. Before my God, that's all."

Uriah turned away. He knew Matthew had watched. The man was doggedly trustworthy. It was his own fault for setting an old tortoise to supervise a young cat.

"Get him on his feet."

Arin slumped between the two guards. His face glistened. The blanket had fallen away as they pulled him up, and Uriah saw that it was more than tears. Arin's body was clammy with cold sweat, the red eyes aged with exhaustion and pain. Elin had been deep in him, like Kon and Gill. To cut her away from

**THE MASTERS OF SOLITUDE**

life, he had lanced into his own soul and a part of him died with her.

Matthew covered Elin. "The women will be here soon. What can we do?"

"You could pray for her," Arin croaked. "That's what you do isn't it?"

Uriah tapped the club against his palm busy with the problem of the thwarted women. For the loss of Elin, they would want all of the men, and that he could not give them. The Shando must die in Lishin without incriminating Salvation. He stepped close to Arin. "You are a strange and incomprehensible man, but I've never underestimated you until now. You're right, I can't keep you forever. But you must stay until you're healed, Arin."

He handed the club to Matthew who took it gratefully and moved in on Arin. The first blow exploded just behind Arin's ear. He didn't remember falling, just scrabbling stupidly on his knees with the cellar going dark around him. The second blow broke his left arm.

As the leaps jumped into his mind, he realized he was still pitifully open, sharing this pain with the men. For the first time in his life, he shut them out completely so they couldn't suffer for him, totally cut himself off from Circle, dying a little again as he ceased to feel the blows, alone in the dark on the

brink of a precipice from which he had once before stepped back... He learned the savage, ridiculous end of it weeks later when it didn't matter any more. Imprisoned away from the others, lying on the cot from which they took Elin's body, Arin could still laugh feebly at Uriah's undeniable resourcefulness. With hardly a minute lost, the corpse was laid close to a hot stove for as long as possible. When the women came, they were told that the girl had swallowed hidden poison. She was in terminal coma and would die without waking. Justice in this case would be academic, but if they insisted...

They did. They took up the convincingly warm body and, with somewhat dampened righteousness, carried out the sentence. The remnant was wrapped in a blanket and left deep in the woods for scavengers. So Elin went home to the forest that bore her, receiving her again and cleansing itself as it always did.

By a close vote, Jay was cast out of Salvation, out of the sight of God, never to return.

"He chose to go to Charzen," Uriah told Arin. "So he will carry our agreement to Garick's alliance. He is one of you now." It sounded like something spoken at the edge of a grave.

[To be continued]

## In Memoriam Carmen F. Zollo (1923-1977)

CARMEN F. ZOLLO, the man who made *Galileo* magazine financially possible, passed away unexpectedly early Friday morning, December 16, 1977.

All new magazines, particularly science fiction magazines, are risky ventures and it requires someone with vision and courage to support them at the beginning, when it counts the most. Mr. Zollo was that kind of man.

He served in the U.S. Marines in World War II and on his return was able to obtain a college education through the GI Bill, graduating with honors from Boston University. He obtained his Masters of Business Administration from the Tuck School at Dartmouth College.

He made Carmen F. Zollo, Inc. into the nation's leading import-export firm dealing in exotic leathers, founded Mark Christopher, Ltd., a film company, and created Zollo Productions Company which has produced a number

of Broadway plays and shows.

He was the American distributor of the award-winning film, *The Magic Flute* by Ingmar Bergman and was involved in the production of *The Shadow Box*, which won the Tony Award for Best Play and the 1977 Pulitzer Prize, and he produced *The Basic Training of Pavlo Hummel*, which won a Tony Award for Best Actor for Al Pacino.

Mr. Zollo was a special associate consultant in the production of *Golda*, starring Anne Bancroft, and was also involved in the production of *Guys and Dolls*, and *Paul Robeson*.

In recent months he had become associate manager of three Broadway theatres: The Helen Hayes Theatre, Morosco Theatre, and the 46th Street Theatre.

Mr. Zollo was a self-made man in the best sense of the American tradition but he was also the kind of man who never forgot his friends on his rise to wealth

and influence.

He liked to read science fiction and enjoyed each issue of *Galileo* as we sent it to him, often hanging the covers on the wall of his New York office.

He was an optimist, a man willing to take certain risks to bring about something he believed in. When President Kennedy vowed to put an American on the moon, he spent hours searching for an "Astrobace" toy for his son for Christmas, because that was the toy the boy had wanted most of all.

"Now you can go to the moon," he told his son when the gift was unwrapped that Christmas morn.

His family and friends will miss him and we at *Galileo* owe him a debt which can't really be repaid. His help let us turn our dream into a reality. For us at *Galileo*, in his own way, he said, "Now you can go to the moon."

He will be missed.

—G—

# The Aleph:

Andrew A. Whyte

## A seasonal microcosm

**A**ROUND THIS time of year, everyone turns into Janus and attempts to look both backward and forward at the same time. Having come this far, we wonder, what are we likely to encounter next?

It is not without irony that the public seems to be turning to SF for answers about tomorrow at a time when the literature has never been less future-oriented. The new clout acquired by the genre on the best-seller lists and on the screen has little to do with its predictive elements. 'F' stands for fantasy and fantasy means escape.

In retrospect, 1977 may come to be regarded as a watershed. A few books and films have met with well-planned, but unprecedented success. Not unnaturally, the result is that more and more people are becoming involved with SF in the hopes of emulating that success and that more projects of all kinds are being contemplated than ever before. What effect this will have on the field as we have known it remains to be seen, but one does not have to be much of a prophet to be able to predict vastly increased activity for the coming year. Everybody, in the words of Jimmy Durante, wants to get into the act.

After 1978, what then? *Le déluge?* I wish I could tell you, but I'm afraid I just don't Noah. Whatever may befall, "The Aleph" will be here to keep you informed.

Time and tide may wait for no man, but we aim to arrive on the new shoreline on the first wave. You'll find us standing there waiting to tell you all about it. That is, of course...if you survive. Happy New Year!

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ADLARD, Mark

### Interface

[TC City Trilogy: Volume I]

Ace/January/\$1.50

1st publication in US by Sidgwick & Jackson (1971)

The American debut of a promising British writer, this is a classic satirical dystopia, first of a set of three "variations on a theme," to be followed by *Volfeice* and *Multiface* in March and April. In TC City, society is composed of the Executives, a supersophisticated managerial elite with perfect memories and augmented intelligence, and the Citizens freed by automation from the drudgery of any kind of manual labor and presumed to be genetically unsuited for anything else. Thanks to drugs in their water supply, they are unaware of any other way of life than that of the teeming beeblocks and hurtling pavilines. Ultimately the inevitable bloody rebellion ensues, engendering a "twilight of the gods" for which the author is delighted to provide the leitmotivs.

ALDISS, Brian W.

(F)

### Brothers of the Head

Copiously illustrated by Ian Pollock

Two Continents Publishing Group/January/\$7.95

Pierrot Publishing (UK)

On examination, it is difficult not to conclude that this new work by Brian Aldiss is rather too far afielid from our purview, no matter what the publisher may say. After all, it is subtitled "A Modern Gothic Tale." And yet...something is going on here of considerable interest to the field, of only for what it suggests about the Shape of SF To Come. Certainly the format is distinctive. This is supposed to be the first in a new British SF series in which text and illustration are equivalent, somewhat as in a children's picture book, but distinctly for adults. Why this particular book's plot about rock musicians, pop stars, who happen to be Siamese twins? I really don't know, frankly, but I'm willing to have an open mind.

ANTHONY, Piers

### Battle Circle

Avon/January/\$2.25

Contains: *Sos the Rope* (reissue) *Var the Stick* (reissue) *Neg the Sword* (1st US publication). *Sos the Rope*, the second novel by Anthony to be published, won him the prize in a contest back in 1968; *Var* and *Neg* appeared in 1973 and 1975. This is the first time they have been together under one

cover. The trilogy is an examination of the importance of ritual combat in the formation of nations. After the holocaust, only the strong survived. [All disputes were settled in the battle circle and a man was known by the weapon he carried.] A new order rose up around those who were strong enough to offer others security. A complex code of ethics evolved between warriors which was to form the basis for the rebuilding of civilization. For lovers, like Anthony, of the martial arts and students of history to come.

BOGNER, Norman  
**Snowman**

Dell/February/\$1.95

Tourism in a Colorado ski resort is not encouraged by the sudden murderous appearance of a creature formerly known only in the mountain fastnesses of the Himalayas.

BOYD, John

### The Girl With the Jade Green Eyes

Viking/January/\$7.95

"Handsome, Victorian, Ranger Tom Breedlove" is sent to check out reports of naked campers in Idaho's Selkirk Wilderness State Park. On investigation, they discover that they have silver skins and green hair and are not tourists but refugees from the planet Kanab, which, alas, is no more. Their spaceship has merely run out of fuel, explains Kyra, the "brilliant and beautiful leader" of this curious crew (nine ravishing females and a young boy). In love at first sight, Tom does his best to help them find a cupful of U-235, despite ensuing complications with assorted officialdom and his potentially disastrous ignorance of the facts of Kanabian biology.

BRADFORD, Robert  
see MOORE

BRETNOR, Reginald  
**A Killing in Swords**

Pocket Books/February/\$1.75

Bretnor is chiefly known as the creator of Papa Schimmelehorn and Ferdinand Feghoot, as well as the editor of three superb symposia on the meaning and future and craft of science fiction. This, which is probably not his first novel, is a mystery in which [the mayor of San Francisco] is found dead—murdered by a beautiful woman who turns out to be a machine.]

The Aleph

BURGER, Neal R.  
see SIMPSON

CHALKER, Jack L.

### The Web of the Chosen

Ballantine-delRey/February/\$1.75

Author's title: "Worlds of Mist and Shadow"

Among other things, Jack Chalker is an anti-utopian ferry-boat enthusiast and a superlative auctioneer. For many years a fan and small press publisher, he now seems well on the way to becoming a very prolific writer indeed. Since his late-1970 debut he has written and sold seven novels and at least four short stories. He has been informed that his previous novel, *Midnight At the Well of Souls*, is selling better than any other delRey title with the exception of *Star Wars*, and *The Sword of Shannara* (although he has yet to see a review other than in *Publisher's Weekly*). The book here under consideration was written in homage to his favorite SF writer, Eric Frank Russell, whose typical hero is an ergonomically space scout, out of step with the rest of society. This is a fair description of the hero of *Web*. He is a man used to winning. "Nobody beats Bar Holliday!" he says again and again. For most of the novel, the line is a joke but at the end, he gets even (if not quite in the way he expected). Chalker describes this as "the ultimate transformation novel." The cover by Ralph McQuarrie ("of Star Wars fame!") shows Bar in top (if somewhat surprising) form. He's the green one in the middle, with the horns. Despite the fact that he also wrote the book as self-parody, without "a serious bone in its body," it surprised him on re-reading by also supplying food for thought. All things considered, Jack Chalker feels pretty lucky and thinks that this is a good time to be a science fiction writer. "I don't think the boom is going to last," he says, "but I'm very determined to be one of the survivors!" [Ob, and by the way, the spelling of "Chosen" is to make you curious enough to pick up the book, and is not the author's idea but that of his editor, who had a pretty successful year, market-wise, and she's putting her money on Chalker.]

CHANDLER, A. Bertram

### The Way Back

[Grimes series]

DAW/January/\$1.50

Chandler's spacefarer alter ego experiences one of his most surprising adventures in this new novel set late in his career. Commodore Grimes and his ship, the *Farway Quest* are lost in time and space. In order to make their way home, Grimes and his mutinous crew are obliged to intervene in Earth's prehistory, where and when they find themselves enacting the roles of figures out of myth and legend. The next (and not necessarily chronological) installment in the life of Grimes, *To Keep the Ship*, will be published by DAW in June.

CHERRYH, C.J.

### The Faded Sun: Kesrith

Galaxy/January-March

SF Book Club/March/\$1.98+

DAW

CLAYTON, Jo

### Lamarchos

[Aleytys series #2]

DAW/January/\$1.50

*Diadem From the Stars* was apparently one of the best-received books by a new author to appear last year. In a direct sequel, Jo Clayton continues the adventures of her heroine, Aleytys, who has inadvertently become the possessor of an alien artifact which has given her special powers and made her the quarry of its rightful (?) owners, a

Drew Whyte

race of implacable arachnoids. Cast adrift on a hostile alien world [with only a thief and a madwoman to help her], the wearer of the Diadem must somehow escape, avoid pursuit and gain mastery over her invisible [mindslave band].

DARLTON, Clark

### In the Center of the Galaxy

[Perry Rhodan series]

Translated from the German

Ace/January/\$1.95

This is the last Perry Rhodan to be published by Ace and the longest novel in the series to date, written specially, I believe, to meet the demands of American readers, where were apparently not enough—however ardent—to justify carrying on with Perry & Co. indefinitely. The series does continue in Germany, of course, on its usual weekly schedule, as well as several spinoffs, all the work of a consortium, and translations appear regularly in various languages. But this quintessential and seemingly endless space opera has run its course in the USA, unless... Yes, it seems there is still hope! Fury Ackerman will publish Perry on his own, if necessary, out of his own house! If you are a believer, you'll find further details in the back of this book.

deCAMP, L. Sprague

(C)

### The Best of L. Sprague deCamp

SF Book Club/February/\$2.98+

Ballantine-delRey/\$1.95

DICKSON, Gordon R.

### Gordon R. Dickson's SF Best

Illustrations by Rick Bryant

Introduction by Spider Robinson

Dell/February/\$1.75

Other collections by Gordy Dickson include *The Star Road*, *Ancient. My Enemy. The Book of Gordon Dickson (Danger—Human!)* and *Mutants*.

DONG, Eugene (M.D.)

(&) ANDREPOLOUSS, Spyros

### Heart Beat

Coward, McCann & Geoghegan/February/\$8.95

An artificial heart run by plutonium becomes a weapon in the schemes of a terrorist in this novel of 'medical suspense.'

DOZOIS, Gardner

### Strangers

Berkley-Putnam/January/\$7.95

Gardner Dozois's first solo novel is an expansion of a novella that appeared in *New Dimensions IV* (Signet, 1974), where the editor described it as "an intricate and melancholy tale of love and biological mystery on an alien world." Joseph Farber, an artist living in [the uncomfortable and decadent Earth colony among the alien Clan the planet Weinunnach] has himself genetically "tailored" so that he can marry Lirau, a humanoid Clan, and interbreed. In his passion for the alien girl, he has neglected [fundamental differences between their races and cultures that prevent adequate communication between them]. The affair is doomed to end in tragedy.

EMTSEV, Mikhail

(&) PARNOV, Eremei

### World Soul

[Best of Soviet Science Fiction Series #4]

Translated from the Russian by Antonina W. Bouis Macmillan/February/\$7.95

FISHER, Lou

### SunStop 8

Illustrations by Stuart Shiffman

Dell/January/\$1.50

Title in manuscript: "Eighter From Decatur"

Chet McCoy, "hero" of this action-adventure is described as "a hard-loving, two-fisted boor with a heart of solid brass." He is caught between opposing forces when kidnapped by the mad dictator of a pleasure planet and forced to run his lottery. It seems that Lou Fisher had a story in *Fantastic* back in 1958 and is not to be confused with Gene Fisher who writes as Gene Lancour. I hope I've got that right.

FOSTER, Alan Dean [adapter]

### Star Trek Log Ten

Ballantine-delRey/January/\$1.95

This final adaptation of the animated *Star Trek* show scripts will be of special interest of readers of Larry Niven. It is a novellation of Niven's "Slaver Weapon," based on his story "The Self Weapon" and blends creatures from his universe with that of Gene Roddenberry's creation. (I wonder how Foster describes a kzin?)

### Splinters of the Mind's Eye: The Further Adventures of Luke Skywalker

[sequel to *Star Wars*]

delRey/February/\$8.95 (hardcover)

Ballantine-delRey/April/\$1.95

SF Book Club/May/\$1.98+

HARRINGTON, Alan

### Paradise I

Little, Brown/February/\$10.00

The author of several interesting novels (one of them, *The Revelation of Dr. Modesto*, bordering on SF) as well as *The Immortalist*, simultaneously a passionate manifesto and reasoned argument for the need to extend the human lifespan, to conquer death, here portrays a complex fictional world in which this has come about. The society that this possibility necessitates is a far cry from utopia, (if the potential still exists) for supplies of the essential drug are limited. Ultimately the future will be decided by the outcome of a conflict between two men and their respective movements, between a "Train Plague" and "The Public Relations of Death."

HARNESS, Charles L.

### Wolfhead

Berkley/February/\$1.75

Serialized in *F&SF* (November-December, 1977)

See *Galileo* Number S.

JAKES, John

### Brak: When Idols Walked

[4th book in Brak series]

Pocket Books/February/\$1.50

First book publication of a sword-and-sorcery adventure serialized in *Fantastic* in 1964... Brak the Barbarian incurs the wrath of a sorceress who has the power to animate statues with the spirits of departed evil-ones.

KING, Stephen

### Night Shift

Introduction by John D. MacDonald

Doubleday/February/\$8.95

The best-selling author of *Carrion*, *Salem's Lot* and *The Shining* (soon to be filmed by Stanley Kubrick) here presents a miscellaneous assortment of gruesome tales ranging from supernatural horror to SF. (Seems he had a couple of stories in *Doc Lowndes's Health Knowledge* magazines back in 1969.)

LAKE, David J.

### The Gods of Xuma

or Barsoom Revisited

DAW/February/\$1.50



Spacemen encounter a world which bears a misleading resemblance to the Mars of Edgar Rice Burroughs in this fourth novel by an up-and-coming Australian writer. [Of course, there were differences, but even so, this planet was ruddy, criss-crossed with canals, and its inhabitants were redskinned, fought with swords, and had many things in common with the fantasy Mars of the John Carter adventures.] On the other hand... An illustration of the perils in reading too much science fiction (if you have any intention of visiting other worlds in person).

**LEAR, Peter**  
**Goldengirl**  
Doubleday/January/\$8.95

1st publication (June, 1977) in UK by Cassell.

The 1980 Moscow Olympics are the scene as [a beautiful young girl is subjected to the latest forms of body and mind engineering to turn her into a sports superstar.]

**LEE, Tanith**  
**Vazkor, Son of Vazkor** (F)  
DAW/January/\$1.95

**Quest for the White Witch** (F)  
DAW/February/\$1.95  
2nd & 3rd books in a trilogy begun by *The Birthgrave*.

Tanith Lee's four hundred-page epic of a nameless heroine, the last of her race, who sought her identity and the use of her full godlike powers, was sufficiently popular to demand a sequel. Here are two of them. The infant she abandoned in the earlier book has now grown to manhood as an unloved [orphan] nomad until one grim night he learns of] his conception from the tortured affair [between the silver-masked, snowy-haired survivor of the hated Old Race] and Vazkor, the obsessed sorcer-king. Taking his father's name, he seeks revenge against his mother and through her death, the recovery of his birthright and his honor.

**LYON, Richard K.**  
see OFFUTT  
**MEREDITH, Richard C.**  
**Vestiges of Time**  
[3rd in a series]  
Doubleday/January/\$6.95

Completes a trilogy that began with *At the Narrow Passage* and *No Brother, No Friend*. Eric Matthes

seeks to discover the motivation of Kriths to change time... an army of his simulacra... parallel worlds adventure.

**MOORCOCK, Michael**  
**A Messiah at the End of Time**  
DAW/February/\$1.50  
Published in UK as *The Transformation of Miss Mavis Wing* in February, 1977 by W.H. Allen.

The characters in the fiction of Michael Moorcock are nearly all related—incestuously. The protagonist of one novel or sequence will turn up in another, bemused, perhaps, but no less certain of his destiny. So here we have that disagreeable cosmic presence The Fireclown, of the book of the same name (and one other: *The Winds of Limbo*) to whom we were first introduced in 1965 (UK), arriving in the midst of The Dancers At the End of Time [those decadent, bored inheritors of ultimate power as the world entered its final days]. (cf. *An Alien Heat*, *The Hollow Lands*, *The End of All Songs*, etc.) "Ah, how you must have prayed for me to come back to you!" The Fireclown presumes, coolly. Well, not in so many words. Now that he is there, what is he to do with them or they with him? Any suggestions, Miss Wing?

**MOORE, Ward**  
with BRADFORD, Robert  
**Caduceus Wild**  
Pinnacle Futurian/February/\$1.75

Ward Moore is the author of the classic SF novel *Bring the Jubilee*. Much other material—as yet overlooked—exists. This novel was a serial in Doc Lowder's *Original Science Fiction Stories* in the fifties—the period when SF novels generally depicted future worlds run by one element of society: What if the Advertising men (*The Space Merchants*) took over? Or the Insurance companies (*Preferred Risk*)? In this case, it's the doctors. Everybody has to travel with his medical records at all times. Naturally there's a rebellion. Predates current antipathy to AMA. No knowledge whether this book has been revised.

**OFFUTT, Andrew J.** (F)  
& LYON, Richard K.  
**Demon in the Mirror**  
[War of the Wizards: Book One]  
Pocket Books/January/\$1.50

Tiana of Reme, illegitimate daughter of a murdered duke and foster child of the greatest of

the pirate captains, embarks on a hazardous search for her enchanted half-brother. A sword-and-sorcery heroine for those who admire C.L. Moore's Jirel of Joiry and Frank Thorne's comic adaptation of Robert E. Howard's "Red Sonja."

**OWEN, Richard**  
**The Eye of the Gods**

Dutton/January/\$7.95

Quest for a dinosaur in a hidden South-American valley behind a great mountain. Interestingly enough, the author has participated in an attempt to climb the mountain.

**PARNOV, Eremel**  
see EMTSEV

**RAE, Hugh C.**  
**The Travelling Soul**

Avon/February/\$1.50

Poet laureate of future totalitarian regime becomes instrument of an attempt to overthrow it, involving the spirit of a long-dead Aztec princess.

**ROBINSON, Frank R.**  
& SCORTIA, Thomas  
**The Nightmare Factor**

Doubleday/February/\$10.00

Previously announced as "The Omega Plot"

Another in the currently popular medical menace craze. The authors seem to have abandoned SF for the greener pastures of bestsellerdom. A mysterious epidemic may be the result of unauthorized genetic experimentation.

**ROBINSON, Frank S.**  
**Children of the Dragon**

Avon/January/\$1.95

Jehan, "a mighty, mythic hero" opposes the tyrant of a "vast barbaric land." Bold action and savage adventure."

**ROTSLER, William**  
**Zandra**

Doubleday/January/\$6.95

A motley crew on a passenger jetliner fly through the Bermuda Triangle to another world. Written with film in mind—I think Rotsler the filmmaker goes under the name of Bill Osco).

**SCORTIA, Thomas N.**  
see ROBINSON, Frank R.

**SIMPSON, George E.**  
(&) BURGER, Neal R.

**Thin Air**  
Dell/January/\$1.95

**SMITH, David C.** (F)  
& TIERNEY, Richard

**For the Witch of the Mists**  
[Bran Mak Morn series #3]

Zebra/February/\$1.95

More heroic fantasy adventures of the fearless Pict created by REH.

**SPRUILL, Stephen G.**  
**Psychopath Plague**  
[1st in a series]  
Doubleday/February/\$6.95

A detective and his alien servant attempt to unravel the mystery of why Earth's inhabitants are behaving more irrationally than usual—going beserk. By the author of *Keepers of the Gate*.

**STERLING, Bruce**  
**Involusion Ocean**

[The Harlan Ellison Discovery Series #4]

HBJ-Jove/January/\$1.50

Postponed from October. See *Galileo Number 5*.

**The Aleph**

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STICKGOLD, Bob  
(d) NOBLE, Mark

### Gloryhits

DelRey/February/\$8.95  
Ballantine-delRey/July/\$1.95

This first novel by two young scientists (a biochemist and a geneticist, both researchers in neurobiology) was read and liked in manuscript by Judy-Lynn delRey, who thought it deserved hardcover publication. She took it around, but the only firm response was from the Book-of-the-Month Club. They said they'd buy it as an alternative selection if somebody else published it first. Allegedly, Mrs. delRey then took the matter up with her boss (Ron Busch) who said, "You have just become a hardcover publishing house." This is an event which would appear to be more significant than the book that occasioned it, with some interesting potentialities about which we will be hearing much later. *Gloryhits* does not need an SF label. Indeed, it's possible it might even be jeopardized by it. (And yet, the backing of the Book-of-the-Month Club, how interesting it would be to have a bestseller that is clearly labeled SF. Hmm.) The book does have an important subject, bright spanking, up-to-the-minute, on everyone's mind: The flap over genetic research. Apparently, there's a race on to write "the first DNA novel" and Judy-Lynn wanted to back the winner. The story involves, primarily, two sincere young Cambridge, Massachusetts professionals, a doctor and a professor of medicine. The professor and his wife are going to have a baby. Their friend the doctor is concerned over the fact that the couple ingested some super-LSD (The "Gloryhits" of the title) that is suspected of causing deformed fetuses and wants the professor's wife to have an abortion. Who is really behind this and just what they are trying to do and the fact that indeed, this series of events might already have actually taken place (as the authors point out in a well-documented afterward) is what this book is all about. It seems too responsible to be termed merely a thriller, albeit all the elements are there. Stickgold did have a story in *Galaxy*, so at least the authors are "in the community."

TIERNEY, Richard  
see SMITH, David C.

TIPTREE, James [Jr.]

### Star Songs of an Old Primate

Ballantine-delRey/January/\$1.75

Includes Hugo winner "Houston, Houston, Do you Read?"

TIPTREE, James [Jr.]

### Up the Walls of the World

Berkley-Putnam/February/\$8.95

SF Book Club/May/\$2.98+

When the first novel of a writer who has made a reputation and won awards for shorter work is published, it is always a special event, no matter if it is not, in point of fact, a masterpiece. Tiptree's full-length debut is no exception\*. The great expectations usual in such instances have here been colored by the likelihood that the first Tiptree novel may be also the last. Indeed there exists the possibility that the author may never write SF again. "James Tiptree," you see, is the *nom de plume* of Alice Sheldon, a sixty-year-old psychologist, semi-retired, with good private reasons for keeping her identity a secret. When, on the death of her mother, she circulated a letter that inadvertently provided sufficient clues to the observant, the mystery was dispelled and with it, perhaps, her ability to write. For "Tiptree" was more than a name, it seems, to Mrs. Sheldon. In that *personae*,

she was able to express what she could not, otherwise. Anonymity provided freedom and that was the wellspring of her creative speculation. All this is fascinating and provides, in itself, much food for speculation, especially on SF as a particular art form, as a unique method of communication. Much of Tiptree's writing has been about communication; it seems to be an important theme in the novel *Up The Walls of the World*, which is a complex interweaving of minds and beings on a cosmic scale. "An enormous icy-black eater of suns." The Destroyer is an intelligent entity that drifts through interstellar space, eradicating all in its path. Yet it is not pure malevolence; it has a plan. When the onset of The Destroyer causes their sun to begin to go nova, the inhabitants of a distant planet [send] their thoughts outward to the vast creature, accidentally tapping its strength and projecting themselves into the minds of the psychics in a US Department of Defense research project, whose giant computer installation has recently—independently—evolved a sentient program. All of these various intelligences ultimately become aware of each other's existence and after much transcendent transformation, existence for all living things in the universe is forever altered. Put thus schematically, and without having read the book, this would seem a mighty big subject for any writer to tackle, yet hubris would not appear to be a facet of the Tiptree *persona*. I am grateful to her for having attempted it, look forward to it with eager curiosity, and hope, whatever the degree of her success, that it will not be the last SF by "James Tiptree" that I or anyone else will ever see. (An excerpt, entitled "The Star-Death of Margaret O'malley" was published in the May, 1977 issue of *Heavy Metal*.)

"\*When he feels ready for it, he'll write one, and it will amaze us!" said Robert Silverberg in 1975.

VINGE, Joan D.

### The Outcasts of Heaven Belt

Analog/Feb-Mar-April

First novel returns to setting of well-received "Melia Man."

WOODLEY, Richard [adaptor]

### Death Spore

[Man From Atlantis #3]

Dell/January/\$1.50

### The Disappearances

[Man From Atlantis #4]

Dell/February/\$1.50

WIBBERLEY, Leonard

### Homeward to Ithaka

Morrow/January/\$7.95

Author of *The Mouth That Roared* and other SF and fantasy as well tells non-serious adventures of college professor thrown back into ancient Greece. Blends Greek mythology with Celtic—Cuchulain and Ulisses.

WAGNER, Karl Edward

### Queen of the Night

[New Bran Mak Morn series #2]

Zebra/January/\$1.75

Postponed from December. See *Galileo* number 5.

ZELAZNY, Roger

### The Illustrated Roger Zelazny

Illustrated by Gray Morrow

Baronet/February/\$14.95 (hardcover) \$8.95 (paper)

First of a new series of illustrated books supervised (I believe) by Byron Preiss. [Among the features are a new 23-page Jack of Shadows graphic story; epic murals based on Corwin and the Amber worlds; an illustrated version of "A Rose

for Ecclesiastes" (recently previewed in *Heavy Metal*); and the first graphic story version of "The Doors of His Face, the Lamps of His Mouth." ]

### Anthologies

DICKSON, Gordon R. [editor]

### Nebula Award Stories Twelve

Harper & Row/February/\$8.95

Stories are all reprints, original essays by Algus Budrys and James Gunn, Jr.

MARSHAK, Sondra

(d) CULBREATH, Myrna [editors]

### Star Trek: The New Voyages 2

Bantam/January/\$1.95

PRONZINI, Bill

(d) MALZBERG, Barry N. [editors]

### Dark Sins, Dark Dreams: Crime in Science Fiction

Doubleday/February/\$7.95

Part reprint, part original.

SARGENT, Pamela [editor]

### The New Women of Wonder: Recent Science Fiction Stories by Women About Women

Vintage/January/\$2.95

All reprint.

### PREVIOUSLY OVERLOOKED BOOKS

PUBLISHED IN LATE 1977

Presented as a service to Hugo and Nebula voters.

ADAMS, Robert

### Revenge of the Horseclans

[3rd in a series]

Pinnacle/November/\$1.50

CHANT, Joy

### The Grey Mane of Morning

Allen & Unwin/November/\$9.25

Set in the same universe as *Red Moon and Black Mountain*, a "prequel".

GREENFIELD, Irving A.

### Star Trial

Manor/October/\$1.50

[A man alone and imprisoned on a foreign planet must explore his mind to come up with the reason why he was taken away from Earth.] This is the latest of a number of SF novels by the man who, under his real name, is the Managing Editor of *Manor Books*.

MYERS, Walter Dean

### Brainstorm

Photographs by Chuck Freedman

Franklin Watts: A Triumph Book/November

POURNELLE, Jerry

### Exiles to Glory

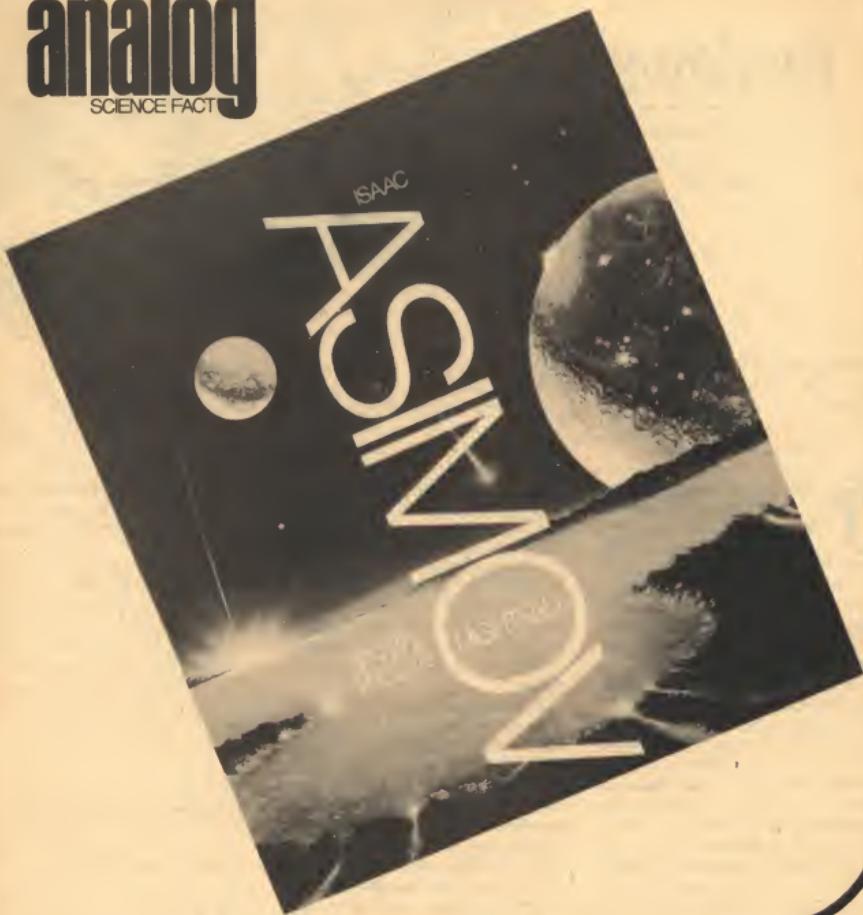
[Hansen Enterprises series]

Galaxy/September, November

To have been published as a Laser Book.

—G—

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# Reviews

Floyd Kemske,  
Editor

## THE REALMS OF TARTARUS

by Brian M. Stableford  
DAW, \$1.95

Reviewed by C.J. Cherryh

**T**HE EXISTENCE of multiple planes of worlds and realities is a theme that has been explored in imaginative fiction since the unknown author of *Gilgamesh* first set stylus to clay; the descent to Hell and the ascent to Heaven, one of the most prevalent and enduring themes in human wonderings. Homer, Virgil, Dante, and later writers carried it into the West; almost every writer in the European tradition is tempted to it at one time or another, with differing success.

Stableford's fever-vision is a structure of man-made Heaven and man-made Hell, an Earth festering in age and ecological disaster, beneath a world-covering Tower of Babel that practices its philosophical conceits and pursues its games and politics while Hell ferments underfoot. The action proceeds like a play on a bilevel stage. Neither set of players is, at first, aware of the other; for human beings have adapted to Stableford's Hell, and believe it to be the only world, and the stars fixed in their sky to be natural, while the humans above are likewise ignorant that life is possible elsewhere. It is a *Divina Commedia* that likewise involves a dreamer and a journey, action that begins in the dreams of an inhabitant of the Overworld, and in those of a prophet in Hell.

Long ago, with the Earth's existence



threatened by plague and pollutions, the whole of humanity worked to create a refuge above, the thin structure of the Overworld, which now exists as a technological Utopia fragilely poised above a fetid twilit land where poisonous growths proliferate and life takes strange and cruel forms. The two worlds, however, are still ecologically linked, and there are accesses that still exist between them. Time is the enemy of both worlds, time and the pressures that have begun to build among the inhabitants of both levels. And through the visions of the dreamer, Magner, Hell begins to bubble upward into Utopia.

This is the beginning. The action proceeds through a variety of characters, constantly shifting levels in events apparently unrelated that weave themselves into one design—which it would be unfair to reveal. The book itself is actually a trilogy complete in one volume, a vast and complex work that rides on solid story. The numerous characters are well-drawn and memorable: Joth of the metal face, the earthbound alien Sisy, Chemeec of the Children of the Voice, in particular—and the writing is taut. There is nothing thrown away; there is no small act that does not eventually become important. The plotting, like the geography of the world itself, is multilevel, skillfully delving into politics and prophecy, shifting the positions of imagination and reality with considerable subtlety. Nothing is quite what it seems, neither in Heaven nor in Hell.

*The Realms of Tartarus* is a deceptive book. The action flows swiftly, after the

fashion of adventure fiction: the events tumble one after the other in a fast-paced style that would tempt the reader to keep moving (the atmosphere of the netherworld sequences alone is worth the read), but under all that mood and action lies unusual depth. Stableford has been widely known as the author of the Grainger series and others, excellent adventure characterized by bizarre mood and landscapes, enjoyable reading...but in *The Realms of Tartarus*, that talent has taken a new bent. One hesitates to say 'masterwork,' because it is to be hoped that Stableford has more such fine work to come, but it is a remarkable book—a work of depth that disturbs, under a smooth-running action that is highly readable.

This is one of the best of the year.

## DEUS IRAE

by Philip K. Dick and Roger Zelazny  
Dell, \$1.75

Reviewed by Ron Rouse



PICTURE is worth a thousand words, and when Tibor McMasters—the most skillful artist in a decimated world—paints, those words are bound to be pithy indeed. That is why the New Church has commissioned him to complete a mural containing the likeness of Carleton Lufteufel—the man personally responsible for the disastrous state of affairs and the supposed incarnation of the God of Wrath (the Deus Irae)—whom the New Church has taken as a more-consistent-with-the-present-conditions alternative to the

Christian God of Love. Lufteufel is still alive, but a 3-D color photo does not quite succeed in conveying the essence of the god-incarnate, so Tibor must go on a pilgrimage through a changed and changing world to see the deed-made-flesh. Tibor's journey takes him through Utah and Idaho, which have become an uneasy and ironical amalgamation (and transformation) of Oz and the world of the *Odyssey*, with a touch of *Siegfried* thrown in for good measure. The life-forms he encounters are sketchily but sympathetically depicted, and we cannot help being enchanted (or frightened) by them. The successful execution of such a masterpiece as the mural would be a fatal blow to the already weakened Christian Church, so zealot Pete Sands is sent to follow Tibor and frustrate his quest.

Upon this framework Philip K. Dick and Roger Zelazny have draped a very loosely-woven, but at times scintillating, series of scenes. The descriptions of the visionary experiences of Pete, Tibor, and Lufteufel (a.k.a. Jack Schuld) are appropriate, awesome, and humorous. The revelation and transfiguration in the penultimate chapter are carefully wrought and redeem about one-third of the novel.

Despite its moments of brilliance, however, the novel is unsatisfying on many levels. It is difficult to accept the fact that the action takes place at some time around 2070. Can we really believe that the various mutations caused by the disaster (which occurred circa 1983) have been able to evolve their own obviously structured *modus vivendi*; that the New Church has become so philosophically developed and so widely promulgated; that the mere question of survival has somehow already been dealt with and is no longer of immediate concern—all this within ninety years?

Even if we do accept the a-chronistic conventions of the novel as being necessary, if only for the convenience of the authors, we might at least expect them to serve some more-than-momentary purpose. But here, too, careful attention goes unrewarded: the etymological discussions at the beginning of the novel do not develop a future philosophy, so much as footnote present thought, and provide an excuse to introduce German quotations; the appearance of a sphinx-like computer and the transmogrification of Fafner and the Woodbird into a giant worm and a blue-jay may be fascinating, but once the reference is made, it is dropped; the

thinly-disguised and over-explained Christ-figuration of Lufteufel provides a facile wrap-up for the novel, but it is used more as a sign than a symbol.

The presence of such allusions invites closer reading, but even if we recognize that the German Scriptural quotations are among those used by Brahms in *Ein Deutsches Requiem* and the first of the *Vier Ernstige Gesänge*; that Tibor is a kind of Anti-Siegfried, -Job, -Pilate figure; that Lufteufel's cretin companion is a combination of St. Veronica, Mary Magdalene, and Cassandra-Electra; that both Pete Sands's and Lufteufel-Schuld's names are macaronic puns—the recognition takes us no further than that: the ideas and references are associated by proximity, not by meaning or function, and interpretation is either frustrated or sterile.

This is a novel of well-drawn details, each given equal importance and attention as individual flowers in a medieval miniature. The invocation of archetypal figures necessarily has a powerful immediate effect. But details and allusions are more satisfying if they integrate, rather than distract; if they derive from, rather than comprise the substance of, the action. Read as an anthology of images and ideas, this novel conjures a darkly shining, but ultimately vacuous, world.

#### THE FUTURIANS

by Damon Knight  
John Day, \$10.95

Reviewed by Sam Moskowitz

**T**HIS INCREDIBLE book is a landmark work for several reasons. It is the first book in science fiction which applies some portion of the candor and openness which characterizes modern journalism to the history of SF fandom. Sexual behavior, marital problems, personality traits, finances, trivia: positive and negative leaven its pages, and it is not just gossip or hearsay. It is, perhaps unintentionally, the long-anticipated "Futurians' side" of the story I described in *The Immortal Storm, A History of Science Fiction Fandom*. The truth turns my presentation into an *apologia* for Futurian behavior.

The Futurians were members of a fan group with political leanings towards communism (though not all their members were so inclined); they involved the science fiction fans, their fan magazines, and meetings in a series

of bitter power struggles during the late thirties. Many of the members became science fiction editors, authors, agents, or artists of considerable prominence. Among the most active figures were Donald A. Wollheim, Frederik Pohl, Cyril Kornbluth, James Blish, Robert W. Lowndes, Richard Wilson, Judith Merril, John B. Michel, and, of course, Damon Knight.

Some of the information in this book was available to me when I wrote *The Immortal Storm*, but I saw no purpose in revealing it. More of it is new to me, but it is of such a nature that I would not have had the heart to publish it. Now that it is in print, however, its reality cannot be dismissed. For example, we learn that during World War II, James Blish was an avowed Fascist, an admirer of all things German, and that one of his closest friends, Maximilian Knoecklein, was a former member of the Hitler Youth Movement. With Knoecklein, Blish "spent beer evenings, singing German drinking songs." When Munich was bombed, Blish's first wife remembers, "Maxi walked with us around Greenwich Village throwing imaginary grenades; I believe he was crying, or close to it." Relentlessly, in this book, Knight follows Blish through to the end. The year before his death in England, Blish carried on a affair with another woman. Knight states that both his second wife and the other woman were at his bedside when he died. Knight's sources include Blish's first wife, Virginia Kidd, as well as Larry Shaw, Judith Merril, Donald Wollheim, Blish's daughter, Beth, and his personal observations. Much of Knight's information is on tapes.

Judith Merril, in a taped interview, tells of writing her husband—stationed in the Pacific during World War II—of a torrid affair she was having with Futurian John B. Michel; she did not spare the amatory details. She claims she had a very open-minded relationship with her husband, and discounts the possibility that these revelations had anything to do with their divorce upon his return.

Back in the late thirties, various members of the group I was in used to call followers of the Futurians "Wollheim's Stooges," because they seemed to blindly follow his dictums. Knight not only confirms this, but he staggers me with the information that this discipline extended as far as their love lives, for Michel broke off his affair with Merril on orders from Wollheim, and Merril

permits herself to be quoted to that effect. Knight further confirms the pictures of Joseph Stalin on the walls, piles of communist pamphlets in the closets, and planned campaigns to break up science fiction fan clubs (often successfully), just for "kicks."

I have read the book twice and that has helped because Knight uses a method of introducing quotations which—while effective in fiction dialogue—is confusing in non-fiction. The result is that in at least 12 cases it is extremely difficult to determine who is dispensing the information Knight, the author, or someone else. If someone else, it is equally difficult to determine who that person is. This could (and should) be easily corrected by the introduction of "Merril said," or "Lowndes said," at appropriate points and would im-

mensely improve the flow and reader understanding of the book.

I have no intention of nitpicking, but I should firmly state that Hugo Gernsback was *not* a short man as Knight states. I am 5 feet 10½ inches tall and Gernsback was at least that height and, as a matter of fact, he even looked taller because he was slim.

Knight has dealt with the personal lives of the people involved and has not attempted an appraisal of their writings or other activities; this book should be read on that basis. He has handled his material objectively and the devastation of an individual comes naturally from the content, not the viciousness of Knight. The volume is utterly fascinating; I cannot conceive of anyone with a close interest in the major figures failing to be absorbed by its contents. I

Ray Bradbury

WHERE  
ROBOT MICE  
AND ROBOT  
MEN RUN  
FOUND IN  
ROBOT TOWNS

New Poems, Both Light and Dark

recommend the book highly.

#### THE DARK DESIGN

by Philip José Farmer  
Berkley/Putnam, \$9.95

Reviewed by Russell Letson

**I**T HAS been twelve years since we first encountered the Riverworld with its multimillion-kilometer-long River and thirty-six billion resurretees. In *To Your Scattered Bodies Go*, *The Fabulous Riverboat*, and "Riverworld," Philip José Farmer follows the wanderings and adventures of Sir Richard Francis Burton, Sam Clemens, and Tom Mix; we have been waiting for the sequel, and it has at last arrived.

This third Riverworld novel is the longest (412 pages) Farmer has written; in fact properly speaking, it is only the first half of his longest novel, since he cut the original manuscript in half before revising this part for publication. It is also one of his most ambitious and complex books, a concentration of the preoccupations and motifs that he has pursued not only in this series but in all of his work. In addition to the expected Riverworld features—the mystery of the Riverworld and its purpose, adventures in strange and wonderful circumstances, ironic and satiric examinations of human nature, a sometimes revisionist view of historical figures and events—Farmer has put into this book an unusually large piece of himself in the form of fictionalized autobiography and self-examination, for one of the major characters is Farmer's Riverworld av-

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tar, Peter Jairus Frigate, SF writer, punster, would-be Burton biographer, and zeppelin fanatic.

Farmer's heroes have always been more introspective than the usual adventure hero, and in the Riverworld books that tendency is more marked; not only does everyone have plenty to think about concerning the mysteries of resurrection, but the viewpoint characters are all troubled people. The earlier main characters, Burton and Sam Clemens, are driven men, subject to violent emotions and, occasionally, violent actions. They are no more able to accept things as they stand in the Rivervalley than they were on Earth, and this restlessness extends to doubts about themselves and their own motives. To these two we can now add Peter Frigate, who emerges from his sidekick status to become another of the dream-tormented seekers of the source of the River, and Jill Gulbirra, an ambitious and aggressively feminist airship officer.

Some of the complexity of the novel comes from the need to follow the actions of four sets of characters—the companions of Burton, Clemens, Frigate, and Gulbirra—through gradually converging lines of action. Farmer handles this by reverting to an old narrative pattern, familiar from the romances of Edgar Rice Burroughs and others: the alternate-section (with optional cliffhanger ending) plot. Readers who have been waiting several years for the solution to the mysteries of the Riverworld, however, will be frustrated, for instead of tying the strands together at the end, Farmer finishes with a

multiple cliffhanger whose impact is only slightly softened by the final chapter he wrote to provide a transition to the next—and presumably for-real last—volume.

These complications of storyline are only surface complexities, though: what sets the book apart from its predecessors is the way that Farmer deals with the mysteries of the Riverworld and the characters who inhabit it. Anyone who has read much Farmer is familiar with the way he pursues the implications of an idea or the multiple possible explanations for an event or a character's behavior (for an example of this, read his afterword to "Sail On! Sail On!" reprinted in *Worlds of Maybe*, ed. Robert Silverberg, Dell, 1974). In *The Dark Design*, this means postulating and considering all the possibilities of the various mysteries involved in the existence of the Riverworld, the purposes of the Ethicals, and the apparent counterplotting of the Mysterious Stranger. As the book's title suggests, most of the implications are sinister, but obscure and twisted, almost impossible to untangle. And as usual in Farmer's fiction, part of the mystery is man himself, the self-conscious, self-examining, self-contradicting creature who cannot deal effectively with his own conflicting desires, let alone the metaphysical riddle of his resurrection and life in the Rivervalley. We spend as much time with the individual puzzles of Burton, Frigate, and Jill Gulbirra as with the external problems. For example, every character whose consciousness we share is haunted by dreams and nightmares whose themes

are not the Riverworld itself, but the personal desires and fears of the dreamers. Frigate dreams that he returns to his childhood home only to find it empty—"Everybody, even the dog, had gone off without a word. What nameless crime had he committed?" No matter what the outcome of the last volume, these mysteries, I suspect, will never be entirely solved.

Farmer's best work is always recognizable as his own and no one else's, not only because of the endless inventiveness of his fictional worlds—Riverworld, the pocket universes, Dante's Joy, Ozagen—or even because of the way his personal fascinations—airships, Tarzan and the adventure fiction of his youth, linguistics, anthropology—become part of the furniture of his fiction. It is, I think, that he is able to descend into his own subconscious mind and bring back visions that we can share because they are somehow our visions too. This world is the Riverworld, and we are the resurrected ones. As the nonstandard disclaimer at the book's beginning says, "You may not be mentioned, but you're here."

#### ALL MY SINS REMEMBERED

by Joe Haldeman  
St. Martin's Press, \$7.95

*Reviewed by Steve Trinward*

**T**HREE YEARS ago a new writer broke into the science-fiction big time with his first novel. Its subject was time-worn, the characters somewhat familiar, and the theme rather ordinary. Yet Joe Haldeman, with *The Forever War*, created the ultimate anti-war novel, a saga of ordinary foot-soldiers, caught in an endless series of meaningless battles, in a war nobody wanted. Although it was set in the 21st Century, and the enemy was an alien race from another galaxy, the Vietnam and Korea overtones were unmistakable. The book was voted "Best Novel," and Haldeman "Best New Writer" at the 1975 Nebula Awards of the Science Fiction Writers' Association.

Now he's back, after a short delay, with another Hugo and Nebula contender. *All My Sins Remembered* is the story of a futuristic secret-agent type, Otto McGavin, who roams the galaxies, thwarting assassins and saving societies, for the greater glory of *la Confederacion*.

So far, ho hum; this theme has had

GALILEO 97

# A fantasy in which there are no easy answers, no solutions without sacrifice; they form no children's tale, these books, but a work as complex in aspect as the leper-hero who dominates them.

more practitioners, from Ian Fleming to Philip K. Dick, and more angles exhausted, than anything save the BEM formula.

But Otto has an added twist or two to his repertoire. First, his infiltration assignments are greatly assisted through psychological conditioning, plastiflesh implants, and "Personality Overlay" (in which the subject of his impersonation is drugged, kidnapped, and strapped to a machine which transmits his experiences and emotional makeup into Otto's own mind and body). When Otto is on an assignment, he is the person he is posing as—with about 10% of his own self, in case of emergencies, lying in the background of his consciousness.

The second factor is far more complex, in terms of story-telling, than the mere marvels of modern technology. Otto is not a volunteer in this business; he, too, was taken prisoner by the authorities, after aptitude tests taken in a job interview showed him ideally suited for the position of superspy. Through brainwashing, hypno-conditioning and old-fashioned physical restraint, they have transformed him into an automaton of sorts, trained assassin and undercover operative, programmed to carry out missions without question. When Otto is between missions, he is kept in a state of hypnotic sleep; only a series of codewords will awaken him, and if he gets out of hand (begins to challenge his captors) during this period, another series of hypnotic "keys" will lock him back into his conditioning cage.

G McGavin's individual operations are about what you might expect for a top agent. Haldeman's fertile imagination postulates everything from a race of tailless monkeys who have perfected eternal suspended animation, to a guerilla band bent on domination or destruction—it matters not which—to an immortal race of gigantic, gentle beetles (S'Kang) who convert matter and energy through collective thought. Creations and themes like these make diverting reading in themselves—when

they are overlaid with the alienation and schizophrenia of Otto McGavin/whoever-he's-disguised-as-this-time, the result is a strong, intriguing novel.

Joe Haldeman (*How unfortunate to be saddled with a name of infamy!*) While reading on the subway one day, I got several stares and one "What an appropriate title!" from people who noticed the title-and-author on the book's spine! is one of the better writers of recent memory. Like the old masters of story-telling, he has a sure, clear style, and tells his tale logically. He also spends adequate time fleshing out the scientific details of his creations, unlike many "New-Wave" authors, who prefer to leave readers guessing much of the time.

Concurrently, though, he is fluent in the techniques of psychodrama and "organic" writing. He is capable of delving into the "inner-space" realms—indecision, alienation, and mental anguish—which were once the exclusive province of the Ellisons and Silverbergs.

## IN THE OCEAN OF NIGHT

by Gregory Benford  
Dial Press/James Wade, \$8.95

*Reviewed by Floyd Kemske*

**G**REGORY BENFORD has written a novel about the proverbial first encounter...and second encounter...and third encounter. Taking place between the years 1999 and 2019, these oblique encounters involve alien artifacts rather than presence ("encounters of the second kind" in the language of the cognoscenti). The focal point of each alien contact is insubordinate astronaut Nigel Walmsley, an impious misanthrope given to the questioning of his superiors' orders. He first appears as the man who enters a derelict alien starship (when it is still thought by NASA to be a planetoid on a collision course with the earth) and manages to look it over before it is blown to smithereens. Fifteen years later, as a meter reader in a NASA laboratory, he

detects an alien probe in the solar system and keeps it secret. By the time he reveals the alien's presence to his superiors he has been able to devise a tap on the NASA communications system which will insure that he is the point of initial contact. Chosen by NASA for the ultimate rendezvous with the alien, he disobeys orders and tries to prevent the launching of the nuclear warhead (at what turns out to be a robot probe) by his xenophobic superiors. Three years after that, he insinuates himself into the research being conducted at the wreckage of an ancient alien ship discovered in the vicinity of Mare Marginis on the Moon. Here he discards mandated procedures, makes his own recordings, and forwards his own messages of classified material to friends on earth.

This novel is not about humanity's relationship to an alien civilization as much as it is about humanity's relationship to Nigel Walmsley. Indeed, it sometimes seems that a major portion of the book is given over to explaining why NASA continues to place Walmsley in sensitive positions involving alien contact after he has done his best to prove himself incapable of following orders. The explanation rests largely in the circumstances of the first encounter, which gives him a kind of charismatic hold on the succession of frustrated bureaucrats who run the space agency ("You've been there," they always say, "You found the first alien artifact.")

The diverse alien encounters at first seem unconnected. In fact, for most of the world they remain unconnected. And their impact on humanity diminishes as the novelty lessens. Their cumulative impact on Walmsley, however, is substantial. By the end of the story, he achieves an integration of himself with the universe which is sufficiently beyond human experience that it's difficult to understand when Benford writes about it. This change in personality, combined with the very real effects of his aging, makes Walmsley a most palpable character.

This novel is the second in the

Quantum Science Fiction program, a lavish publishing project with celebrated editorial advisors and joint publication in all major language areas. The first novel (*The Ophiuchi Hotline* by John Varley) raised a few critical hackles. This one threatens to conjure an actual controversy. Benford constructed the book from previously published short stories (and, in some ways, it reads like it). Asked to explain himself and defend the practice of jury-rigging novels, he has presented the background to this book in a short essay appearing in *Locus*. It is a sensible argument and an engaging account of his own creative process. Benford, however, is too modest to make an important point: it matters very little how a good book is written if it is a good book. *In the Ocean of Night* is somewhat episodic in conception, but it presents us a real person in Nigel Walmsley and contact with that person is as rewarding as contact with any human being. Given the scarcity of good fiction, perhaps it does not become us readers to demand explanations for it from its authors.

**EDD CARTIER: THE KNOWN AND THE UNKNOWN**  
edited by Dean Cartier  
Gerry de la Ree, \$15.00

**MISTY: AN ADULT FANTASY IN VISUALS**  
by James McQuade with Gil Porter  
Sherbourne Press, \$6.50

Reviewed by Alan Dean Foster

**W**ITH THE explosion of science-fiction publishing in the last few years, recognition has finally come in book form to a much-admired but often poorly treated group of individuals: the artists who bring alive so much of what we read, whose impressions of an author's work are often as long-lasting in a reader's mind as the story itself.

Thus far, most of this recognition has come from small enterprises, rather than the major publishers of art books. Their loss, our gain. Small publishers tend to take enormous pride in the reproduction of artwork. Witness as two examples Donald Grant's *Upon the Wings of Yesterday*, a luscious assortment of work (mostly in color) by the fabulous imagist George Barr; or Russ Cochran's monumental *The Edgar Rice Burroughs Library of Illustration*.

Reviews

Of all the artists working in the field in the 40's and 50's, none had quite the unique talent of Edd Cartier. This large-format 128-page volume reproduces (usually one drawing per page) over a hundred of Cartier's inimitable illustrations, many from *Astounding* and the legendary *Unknown*. Reproduction is high in quality; on fine paper it allows, as Dean Cartier says in his introduction, "reproduction of the fine shading and details often blurred or blacked out in the prints."

A sampling of the illustrations reveals that while Cartier was an adequate portraitist, the effectiveness of his art often increases in direct proportion to the absence of humans. While the illustrations of de Camp's *Hand of Zei* and Hubbard's *Typewriter in the Sky* are said to be among the artist's

personal favorites, they are not (to this reviewer) his most effective work.

Cartier's particular gift lies in making the inhuman very real. In his illustrations for such stories as "Shuttle Bop," "Yesterday Was Monday," "Arma-Geddon," and others, humanity takes a back seat in interest and detail to dwarf and devil. His aliens, sentient or not, are constantly believable. It is in a half-human, half-alien humanity (gnomes, elves, witches) where Cartier especially excels. Compare the vitality of his drawings for "A Gnome There Was," "The Sunken Land," "The Wisdom of the East" and others to the hesitant fumbling of so many illustrators of fantasy today.

The answer's simple: Cartier knew those grotesques not as artistic inventions but as real beings. They come

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This one threatens to conjure an actual controversy. Benford, however, is too modest to make an important point: It matters very little how a good book is written if it is a good book.

alive on the printed page because they were alive in his mind before he ever drew them. Try to find an ad for the book. If the cover portrait of Snulbug doesn't convince you, you've no business buying the book.

It's reported that Edd Cartier is alive and in good health, living in New Jersey (despite the contradiction inherent in that information). He has not done fantasy of SF illustration in too many years. His liveliness and visual humor are badly missed. I've never met the man, but inside I know he'd rather be drawing gnomes than whatever he's drawing now. Lucky for him the league of demons, djinn, and aliens have no legal power, or they'd be suing him now for non-representation.

It appears that America has discovered what Europe and Japan have known for many years: extended graphic stories (adult comics, if you must) are a legitimate genre unto themselves. The present success of the magazine *Heavy Metal* is the latest evidence of this. Although if they keep doing things like printing Drillet's "Gail" in black & white when it originally appeared in *Metal Hurlant* (the French magazine from which *Heavy Metal* is largely derived) in color, they're liable to risk alienating artists as well as their new audience.

Richard Corben is perhaps the most noted native practitioner of the adult graphic story. He has extended his excellent work for the underground comics and Warren magazines to book length, with *Bloodstar* and now *Den* (soon to be in book form, one devoutly hopes). But perhaps the most unsung effort in the field was made in 1972, when a small Los Angeles publisher, Sherbourne Press, issued (at the absurdly low price of \$6.50 for a hardbound book) James McQuade's *Misty*.

This remarkable volume consists of over 120 pages (an estimate, since the publisher neglected to print page numbers!) of immensely detailed work describing the adventures of a very American voluptuous blonde named

Misty. Misty is sort of a zaftig Barbarella, running into all kinds of problems with a corrupt future society. Each page is designed as a unit, and it's reported that 3,600 hours of drawing time went into the book. Obviously it's a labor of love, because you know that at \$6.50 a book, McQuade hasn't realized much of a return on his investment. Which means that if you can find a copy of the book (and there are paperback copies available from some dealers) it's a bargain you'll be glad you ran down.

Make no mistake, this is not to be compared to some sleazy work by quick-shot European artists. McQuade can draw. Naturally, though, he's learned from his experience. So what do you think he's working on now? Last I was able to discover, he's nearly a hundred pages into *Misty II*, for which he has as yet (I assume) no publisher. Anyone wanting to start a magazine to compete with *Heavy Metal* would have an excellent start with *Misty*. Buy a copy, if you can find one.

#### THE CHRONICLES OF THOMAS COVENANT THE UNBELIEVER:

LORD FOUL'S BANE  
THE ILLEARTH WAR  
THE POWER THAT PRESERVES

by Stephen R. Donaldson  
Holt, Rinehart & Winston, \$10.00 per volume.

*Reviewed by C.J. Cherryh*

**O**NE MAJOR problem in writing or reviewing fantasy rests in the fact that the genre is actually the realm of the world's classics: *The Iliad*, the *Odyssey*, *Beowulf*, Wagner's *Ring* operas, *A Midsummer Night's Dream*, *Macbeth*, and others beyond enumerating—a field of course recently distinguished by *Lord of the Rings*. Any writer that ventures into that sacred territory tends to be overwhelmed by the distinguished company, and the inevitable temptation of writer, reader, and reviewer, is to work in the shadow of these dominant

influences. The late professor Tolkien in his (deserved, I might add) position of grand-master-most-recent exists as a presence of such power that comparison to him is inevitable: a star, as it were, that warps that surrounding field so completely in these decades that any work tends either toward him or away. The author may imitate (a perilous course in the extreme) or he may deviate, a course likewise hazardous in terms of reader expectations.

The readership longs for another Tolkien—and knows in all reason it is not going to obtain another such, not precisely, not entirely the identical experience; one author is not, obviously, another. But the desire is toward an experience that touches the same chords. The readership approaches a new fantasy with renewed hopes and (if disappointed) bitter resentment of a magnitude seldom accorded a new work in other fields.

So in the Thomas Covenant trilogy a new writer debuts, with considerable courage—and considerable confidence on the part of his publisher, who has made of the books a beautifully crafted package, with extraordinarily fine cover paintings by S.C. Wyeth, and a purchase price of ten dollars the volume.

And the fantasy collector is caught between the aforesaid hope and apprehension.

Another *LOTR*? or disappointment? Stephen R. Donaldson has given us a unique and imaginative creation. The books are of course immediately remarkable in their protagonist, Thomas Covenant, who is a modern man—and a leper.

The story begins in a small town in this present world, and abruptly passes into quite another, a place called simply the *Land*, where Thomas Covenant merges with the legend of an ancient hero named Berek Halfhand.

Nothing is simple here: the merging is only in symbol—at least so it seems; and the halfhanded hero was at best a failed rescuer who in his attempt to save the Land, lost himself. In his

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—Stuart David Schiff, *Whispers*

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—Richard E. Geis (*Alter Ego*), *Science Fiction Review*

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—George Barr, *Delap's F & SF Review*



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I've never met the man, but inside I know he'd rather be drawing gnomes than whatever he's drawing now. Lucky for him the league of demons, djinn, and aliens have no legal power, or they'd be suing him now.

defeat he cursed the Land and plunged it into the ruin from which it has only lately recovered. Now the Enemy that Berek sought to destroy has likewise recovered, and is reaching out to possess the victory snatched from his grasp so long ago.

And Covenant finds that he has been summoned into the Land, not by its defenders, but by the evil that would corrupt it. He is given a message to be delivered to the Council that rules the Land, a forecast of their ruin.

Herein lies the special quality of this unwilling hero: he is above all else true to himself, but he rarely does the predictable; there is earth-magic in the Land and in its people, and corrupting evil in the Enemy. But in Thomas Covenant is the symbol of wild magic, the uncontrollable. Used as he may be by Lord Foul for his purposes, Covenant yet bears the maimed hand that marks him in the Land as a presence of omen. The people thrust upon him their loyalty, place their hopes in him, while he bears what he is certain is their destruction.

This is the beginning of a journey through many memorable encounters: gentle Lena of the Stonedowns, whom Covenant wrongs; and the giant Foam-follower; and Bannor, whose loyalty to the Council is rooted in the failure of his people to save the Land centuries ago—sleepless and ageless, this Bannor in his inhumanity is the antithesis of the hero he comes to serve. Not least, there is Mhoram, the wise councillor; and Winhome Gay, one of the servants of the Ranyhyn, the great horses of the Plains of Ra, themselves as splendid a creation as any in fantasy.

Each book of the trilogy is complete in itself, but the development of the story is far from episodic. All the threads of the beginning in the first book are gathered, however far scattered, into the third. The flavor of each book and of the whole is bittersweet—a fantasy in which there are no easy answers, no solutions without sacrifice; they form no children's tale, these books, but a work as complex in aspect as the leper-hero

who dominates them. There is horror here as well as beauty, and sometimes the enemy wins.

But there is likewise heroism, not least in the tormented Covenant himself, who does not know how to wield the magic he holds, who fears most of all the hopes of the people who insist on believing in his unbelief.

There is unremitting action, complexity of structure that involves an ancient struggle as well as the present one, a depth of history and wholeness to the Land that makes it real—and a depth to the people that makes them live. A good fantasy leaves the reader with the taste of regret, sorrow to be leaving behind such a place and such people. This is such a book.

Another *Lord of the Rings?* No. This is something on its own, a whole world, and a magical one, and it lives. It is particularly pleasant to reflect that Stephen Donaldson is a young writer, and one hopes for more.

These are special books, and magical, and very much worth the treatment the publisher has given them. Recommended.

**WHERE ROBOT MICE AND ROBOT MEN RUN ROUND IN ROBOT TOWNS**  
by Ray Bradbury  
Alfred A. Knopf, \$6.95

*Reviewed by Ron Rouse*

**T**HE DELIGHT we feel when reading a new work by Ray Bradbury is like our delight when looking into a kaleidoscope—basic elements re-arrange in fascinating, different patterns, and there's always a surprising addition, something noticed only peripherally before. Many of the themes and images which permeate his other work are here refined and recast so that we encounter these poems with a sense of *deja vu*. For example, in *Dandelion Wine* (1957), "...the men all coming out first into the syrupy evening, blowing smoke, leaving the women's voices behind in the cooling-warm kitchen to set their

universe aright... At last, like ghosts hovering momentarily behind the door screen, grandma, Great-grandma, and Mother would appear..." becomes "...uncles gathered with their smokes/Emitted wisdoms masked as jokes,/And aunts as wise as Delphic maids/Dispensed prophetic lemonades..."

There is something oracular about Bradbury himself. The words which "The Young Galileo Speaks" reveal both the source and the purpose of much of Bradbury's writing:

*The flower of the night lies on my tongue. I speak it so/ That others, inviting of themselves, abed, not brave, may know/ What this boy knows and will forever know:/ The Universe is thronged with fire and light,/ And we but smaller suns which, skinned, trapped and kept/ Enshrined in blood and precious bones./ Hold back the night.*

Yet reflection and vision are tempered by an exhilarating sense of the present, so that sentiment avoids sentimentality, and the mystic avoids mysticism. "The Nefertiti-Tut Express," "written on learning that transEgyptian railroad firemen sometimes used mummies for locomotive cordwood," celebrates the essentially mythic quality of the past. However,...

*In fine incense and smoke they draughted, shimmered, blew/ And all the bright Egyptian winds of time bestrew/ To unflog down wind through Alexandrian East/ Until mid-feast some New Year later on/ A Faisal in his palace, cool, Arabian-kept at dawn/ Unsleep and suddenly panicked and cold/ For no good reason at all, sat up and wept./ Called out to the wind, afraid to die./ Then raised on trembling hand to find and pluck/ The last offending soot of Nefertiti's flesh/ From off his eye.*

Unlike the Faisal, Bradbury's response to the past is certainly neither unknowing dismissal nor reflex action.

Reviews

He takes the past and translates it so we can understand our present. The alchemical transmutation of Melville by the plays of Shakespeare—

*At first there were but whales/ And now a Whale... / At first there was no captain to the ship/ Which, named Pequod,/ Set sail for destinations, not for God./ But: God obturated, rose and blew his breath/ And Ahab rose, full born, to follow Death... / How came it so?/ ...Shakespeare, boned and fleshed and marrowed deep/ Did waken Melville from whale-industries of sleep/ To run on water, burn St. Elmo's fires,/ And shape cathedral spires from/ Moby's titan rib-cage tossed to shore.*

—wrought its own effect upon Bradbury, and through him we see the meaning of our spaceward urge:

*Long blind, we catwalk breadths and heights./ Fix sights in rare Assembly shop as vast as Shakespeare's mind/ And add that Melville once drowns here/ To dream the Beast awake;/ Pumped lox for blood and with one quake/ Of God's triumphant voice made rocket blast/ Thus rousing lunar whale to swim in star tides vast.*

\* \* \*

*Why Mars? Why Viking Lander on its way?/ To landfall Time, give man Forever's Day... / Unlock the doors of light-year grave/ Fling wide the portal;/ Give man the gift of stars./ Grow him immortal./ Put down the Dark, kill final Death./ And sweeten Man with everlasting breath.*

Throughout these poems Bradbury displays a musical ear and fine sense of rhythm. The language is precise and vigorous without being pedantic or awkwardly self-conscious. Each poem works on many different, but not discrete, levels, and the cumulative effect is compounded of joy and wonder. Rather than using fantasy as escape, Bradbury affirms our real world fantastically.

*I dipped in rainbarrels for my eyes/ And cherries stained my lips, my cries,/ My shouts of purest exaltation:/ Byzantium? No. That Indian nation/ Which made of Indian girls and boys/ Spelled forth itself as Illinois./ Yet all the Indian bees did hum: Byzantium/ Byzantium*

The poet, deeply moved, moves us.

—G—

Reviews

# The Galileo PRIZE

For the  
short-short story  
under 3000 words

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*Galileo* magazine would like to encourage this art form through an annual prize for the best work received for publication during any one year. All works of fiction under 3000 words received between January 1st and December 31st have been considered for both publication in *Galileo* and the annual prize, to be awarded this spring, and to be announced in our next issue.

Poul Anderson has consented to be final Judge of what the editors believe to be the 10 best entries.

We hope that, by offering a substantial amount in the form of prize money in addition to our regular rates, both new talent and those more established writers who would be more likely to spend their time on longer works, will be encouraged to submit work to *Galileo* throughout the year. Frederick Brown, Isaac Asimov, and Ray Bradbury serve as the exemplars of the short-short story in Science Fiction, but "name" value will not be considered, as each story is judged on its own merits.

First Prize: \$300; Second Prize: \$200; Third Prize: \$100.

All submissions must contain a self addressed, stamped envelope. Each must be completely original and previously unpublished. Manuscripts should be sent to:

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# 2020...

## On Film

ACROSS: Melinda Dillon and Cary Guffey.



### CLOSE ENCOUNTERS OF THE THIRD KIND

Directed by Steven Spielberg  
Screenplay by Steven Spielberg  
Columbia Pictures

Reviewed by Ron Rouse

**L**OOK! UP in the sky! It's a bird! It's a plane—no, it's... it's not fair to tell you. Steven Spielberg could tell you, so could Douglas Trumbull, so could the thousands of people who've already seen *Close Encounters of the Third Kind*. But if you try to find out what you'll see, you're probably the kid who always sneaked a pre-Christmas peek at the presents—the delight will still be there, but the surprise will be missing. Don't worry, though, because even if you're told, there'll still be threshold experiences waiting for you the first... or second... or third time you see this remarkable film.

*Close Encounters* starts with a bang, presenting Spielberg's basic technique—to be used again and again on always higher levels throughout the movie—of creating an almost-normal situation and then adding an ever-increasing degree of ambiguity or anticipation until the tension is resolved—in laughter and delight. For *Close Encounters* is basically a comedy, on both the immediate level of a series of one-liners and sight gags, and in the broader sense of a man's alienation from and re-integration into society (and, in this case, the universe).

The story-line, tenuous though it is, concerns pre-landing activities of UFOs

and, in particular, their effect upon three people—Roy Neary, Jillian Guiler, and Jillian's young son. The sustaining elements (in a movie in which evil and conflict are not the major issues) are that some of the people who see the UFOs become obsessed with the image of the actual landing site and are compelled to go there; and that Bureaucracy has also discovered the site and wants to control the situation.

That Spielberg chooses to treat a traditionally SF subject (and a traditionally ominous one) with humor, and yet deliberately avoids obvious satirizing of cliched situations, shows both great restraint and justifiable confidence in his ability to manipulate his audience—to create in them a sense of joy and wonder rather than fear and trembling.

This reversal of the usual 'B'-movie treatment of (and our conditioned response to) UFO subject matter is accomplished by consistently teasing the audience into the action of the film. Thus, we are shown a character's reaction to what we cannot see, and our imagination is allowed free play while the tension mounts (shades of Alfred Hitchcock). Even so, it is this device which gives us the first hint that the UFOs might not be all bad—Jillian's innocent child is so obviously attracted to their splendor. Often the main characters are placed in an almost oppressively 'normal' setting, which serves both for contrast and to prepare us for the next spectacular event. By alternating understatement with hyperbole, Spielberg is setting us up for the overwhelming *son et lumiere* finale. It is

here that Trumbull's craft as visual effects coordinator more than satisfies our expectations, with UFOs of every shape somersaulting, cavitating, and pirouetting in three-dimensional glory, ablaze with lights. Trumbull's realization of them creates such a presence that we cannot help but be delighted with what we see, which is precisely the desired result.

Spielberg will probably be faulted for not giving us an "SF" movie (which is something the film never pretends to be), and we might bemoan the fact that good dramatic ideas are not fully developed, but nonetheless we must admit that what Spielberg and Trumbull have done is to present a modern myth in its most awesomely positive aspect.

And now, after an evening of gazing hopefully at the skies, we'll sleep all snug in our beds, while visions of UFOs dance in our heads.

Reviewed by David Johns

**T**

HERE ARE two ways to consider *Close Encounters*: as a movie, and as science fiction. As a movie, it's very good, opening with a bang during a sandstorm in a Mexican desert and maintaining the pace for most of the film. The screen is always full of action. Crowds of characters scurry earnestly, odd camera angles tickle the eye and mind, and sets such as the bedrooms of children are full of little knick-knacks that seem bursting with energy. Even the sky at night is busy and active.

Spielberg works in other ways to keep the audience glued to their seats. The



story jumps from scene to scene, from shot to shot. A question is asked, and we have hardly time enough to understand the answer, which may be shouted by a thousand voices, before Spielberg has cut to another line of action. Also contributing to this feeling of urgency is the music by John Williams. He begins with the kind of rousing theme we expect at the end of most films.

Despite the fast clip, the viewer never feels left behind, thanks to the fine acting throughout. As an Indiana lineman, Richard Dreyfuss is utterly believable in middleclass mediocrity. The only thing missing is a passion for beer and bowling. Melinda Dillon seems to age overnight as a widow whose son is kidnapped by a UFO, and Francois Truffaut as the French investigator of UFOs brings warmth and likeability to his character.

It is in the last quarter of the film when the UFOs finally land that viewers may part company. Some may see the variety of UFOs and the repeated climaxes as the culmination of the film's plot; an overpowering light show, and an epic solution that makes the characters scramblings as petty as a chipmunk's. Others, such as myself, who followed the characters in their arduous journeys, will find the story suddenly sagging, the characters abandoned for the devices of the special effects department. The fact that the three main characters all get some sort of payoff does not reduce the fact that what was for much of the film a frantic race becomes at the end a stately waltz through the sky.

But is this film science fiction? No. The theme and plot may be ones often used in SF, an encounter with extraterrestrials, but their treatment is not much more serious than, say, the TV Superman. There are unexplained events and holes in this movie that could swallow a red giant. Ask yourself why was the whole world-spanning charade gone through by the aliens. Why did they launch a multi-media assault through flashing lights, eerie night noises, kidnappings, psychological suggestion, and to top it off, radio messages giving their landing location? There is simply no reason given for this roundabout method, nor is any given for why they picked this particular time to land after all the years of flitting through skies, collecting human specimens in air, land, and sea, from Indiana to Africa, from Victorian ladies to airplane pilots.

Time and again one is left gasping from unexplained story developments and scientific inconsistencies. Why are some burnt by the light of the UFO, as Dreyfuss and Dillon are, and others not even singed, as in the case of the kidnapped child and the crew of technicians at the end? You may miss one or two of these questions in watching the film, but somewhere along the line the sum total is likely to be just too much to overlook.

So go to this film and enjoy it for the action, the music, and the acting. It's a good, big movie, but don't go for the science fiction because it isn't there.

## DAMNATION ALLEY

Directed by Jack Smight  
Screenplay by Alan Sharp and Lukas Heller  
(from the novel by Roger Zelazny)  
20th Century-Fox

*Reviewed by David Johns*

**D**AMNATION ALLEY is not an extremely bad movie, but in a first-run theater it is an expensive way to spend a rainy day (\$4 in Boston). It is a *B* movie (like most SF films were before *Star Wars*) and as such it has the flaws which those movies are prone to. Chief among these are incredibly stupid characters and holes in both plot and science you could drive an ocean liner through.

The story, for those of you who don't know it, is about a group of WWIII survivors driving across the United States in search of an oasis in the nuclear wasteland. As is typical of such movies, they find a few dangers, both human and inhuman (the human is always lustful, the inhuman hungry), explore a few ruins, lose some old group members and gain some new ones. This may sound something like Zelazny's novel, but if you expect true fidelity in a book-film relationship, you probably believe in the Tooth Fairy as well.

As for the movie, the Badlands locations are picturesque, the photography is interesting for some unusual angle shots, and the music by Jerry Goldsmith is outstanding, literally. It overwhelms the action on the screen quite often (although, admittedly, that's not hard to do). The vital ingredient,



*ACROSS:* Richard Dreyfuss, Jan-Michael Vincent, and George Peppard.

special effects, is not bad but unexciting and unoriginal. When the giant scorpions are crawling after a character, the trick photography is well nigh flawless, but I had the feeling I've seen these scorpions before. God knows, we've had enough SF films which resemble nothing quite so much as feature-length RAID commercials.

As for the acting, George Peppard slips badly in his return to the movies after four years in TVland. He plays Major Denton as a stiff career officer with a hackneyed Southern drawl. Jan-Michael Vincent is Tanner: just a clean-cut, California non-conformist (in the book, Tanner's first name was "Hell," and he was the last of the Hell's Angels). These two characters are obviously meant to be incompatible, but their potential conflict is never developed in the movie. Other characters include the girl with an unexplained French accent, and a dirty-faced urchin. Also included is Paul Winfield who gets eaten by cockroaches, which may symbolize the wasted opportunities in this film. The characters are flat and unchanging so that they resemble pawns being shuffled about on the meaningless chessboard of this film. There is no conflict or strong emotion, just monotony.

I have great affection for science fiction movies and don't wish to stomp on this picture. So what if they drive three thousand miles and never once mention radioactivity or the fact that prevailing winds in the Northern hemisphere are westerly? So what if they never left a guard on the car when they went exploring? Maybe they didn't

think there was anyone or anything to steal it, but a car which can drive that far with only one refill is worth a whole lot.

The actors are not stuttering incompetents. The production values are more than you could whip up in a garage on a shoestring. However, the standards for cinematic SF are rising rapidly, and seeing *Damnation Alley* is like being given a 19-cent hamburger just after your tastebuds have become accustomed to the \$2.95 kind with mushroom and Bermuda onions.

#### STARSHIP INVASIONS

Directed by Ed Hunt  
Screenplay by Ed Hunt  
Warner Bros.

*Reviewed by John Costello*

**R**OBERT VAUGHN, who first entered our ken in that epitome of post-holocaust sci-fi adventure and survival, *Teen Age Caveman*, returns once again with a sci-fi extravaganza released appropriately for Thanksgiving, *Starship Invasions*.

The plot is simple and straightforward, lacking the finer convolutions of *Space 1999* and *Plan Nine From Outer Space*. Captain Ramses (Christopher Lee) of the planet Alpha tries to exterminate the natives of Earth so he can move his own people here before their world's star becomes a supernova. But first, he must eliminate the local base of the Intergalactic League of Races, located in a pyramid at the bottom of the Atlantic. By subterfuge

and deception, he and his crew dispose of all but four of the good aliens (who come in two kinds, one with large bubble-heads, the other physically identical to White Anglo-Saxon Canadians, as this was filmed in Toronto) who escape in a damaged scoutship.

Before they can seek help from a nearby fleet of friendly flying saucers, the good aliens must first repair their saucer's computer with the aid of kidnapped UFO-ogist Robert Vaughn and his cybernetic friend (Harry Rammer), battle with one of the nasties' own saucers in the skies over Toronto, and link Vaughn and his friend into their computer system when it fails again.

Meanwhile, Ramses's fleet is orbiting Earth and an extermination machine is emitting blue sparks that cause children to stamp tomatoes to pulp with fiendish glee and adults to cut their throats. Soon Toronto begins to resemble New York...

Meanwhile, Vaughn's friend has a heart attack aboard the friendly UFO and must be saved with pyramid power...

*Starship Invasions* was conceived and produced to catch free publicity from *Close Encounters of the Third Kind*; originally it was "The Legion of the Winged Serpent" (the villains wear a colored cut-out of a winged serpent on their otherwise black, skin-tight uniforms).

Not since *The Terronauts*, the movie version of Leinster's *The Wailing Asteroid*, has so much money been spent on the special effects of space battles.

—G—

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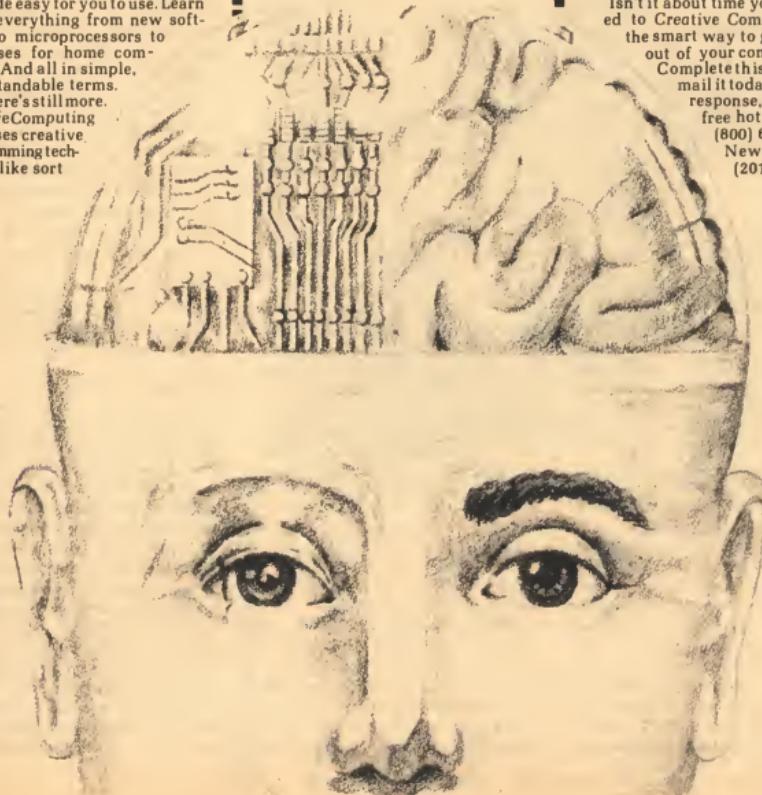
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# Inquisition

## Letters



EAR Mr. Ryan,

The Earth/Space group sounds fantastic. The First article about SSoar was not only interesting, it was personally uplifting and encouraging.

Where can I get more information about Earth/Space, Inc. and SSoar?

While I have your attention, I'll mention that *Galileo* is my favorite science fiction magazine. Definitely the most consistent, high quality!

T. Bolton  
Janesville, WI

Information concerning the Earth/Space Newsletter may be obtained by writing Earth/Space at 2319 Sierra, Palo Alto, California 94303.—Ed.

Dear Mr. Ryan,

The nature of your editorial standards, as demonstrated by your presentation of Hal Clement's "Atoms and Opinions" in issue Number Two, is stand-alone justification for my enthusiastic subscription. Cheers! It is refreshing to see an intellectually balanced discussion of the troublesome subject—it should be required reading in the Sunday Paper of Everyman.

After all, how can we reasonably expect the voting masses to bend their sluggish might in the direction of reason when the purveyors of their information draw their curves before plotting their data? Breathing the essence of Marlboro country, the mass media consumer is far further from reality than the average hermit: at least the latter has not woven his internal model of the world from the yarn of deception. I

guess we'll just have to sigh, sit back, and let evolution slowly sweep the misconceptions from the collective human consciousness.

Steve Roberts  
Jeffersontown, KY

Dear Mr. Kemske,

Re your review of *Star Wars*: I agree that the rocketships would not produce any sound through a vacuum, but I think the sound was very desirable in producing a feeling of might and power at that point. The ships in *2001* don't sound like the *Blue Danube* when they shoot through space. Besides, how do you know the microphone was in space with the camera? It could have been in the engine room or even embedded in the hull. The camera could not very well have been put in the engine room with the mike. Still, I agree it was the biggest and perhaps only let-down of the picture. Perhaps a quick shot of the impressive engine room (with sound) then, or an exterior shot of the ship in space (with silence) would have been more effective, as well as providing an excuse for another great shot.

Number 4 was my first issue of *Galileo* and I was very pleased with it.

Jim Milburn  
Houston, TX

Dear Sirs,

I have just finished issue #4 of your magazine and I am very impressed. It gets better with each succeeding issue. Eklund's story is very well done and Lichtenberg's was exceptional. All the stories were above the average level of most magazines in the Science Fiction

field. Even your articles and departments are impressive.

The "Star Chamber" is an excellent idea, with a photograph and bio. The best idea I have seen in a long time is the "Aleph." It serves two important purposes for me. One, it gives a comprehensive listing of all new sf books, both hardcover and paperback. Second, the capsule summary gives me an idea about what the book consists of, the type of book, etc., without making any subjective judgements. In fact, "Aleph" is one of my main methods of keeping up with new releases.

Please keep up the good work, and if it is at all possible, go bimonthly as soon as possible.

Fred Milano  
Mt. Vernon, NY

We go bimonthly with this issue.  
—Ed.

Gentlemen,

Congratulations—somewhat belatedly—on your magazine. I consider it a fine, and rather unexpected, addition to the world of science fiction. Somehow its large size and dull, non-gloss paper makes it seem to me like a throwback to those marvelous pulps of yesteryear, that many of us have to rediscover reprinted in paperbacks. Now if you could just put out a horror magazine...

Actually, I wrote you to ask why I can't find a case for your magazine. All my other magazines are neatly kept in their individual cases (all the better to preserve their mint condition), except for my *Galileo*, which are rapidly gathering dust. Don't misunderstand me: I'm not trying to drum up business

for magazine-case makers, but I am making a suggestion for all of us hard-core collectors.

R. David Ludwig  
Huntington Beach, CA

Dear Sir,

You want opinions. Fine. I Don't write often—say half a dozen in some 40 years—but you're entitled. Your format is clever and readable. Using speeches, etc., helps hold down costs, and is perfectly OK, if the quality of the material is good. Old items brought forward are interesting, but don't turn into *Famous Fantastic*, and don't put them in too often.

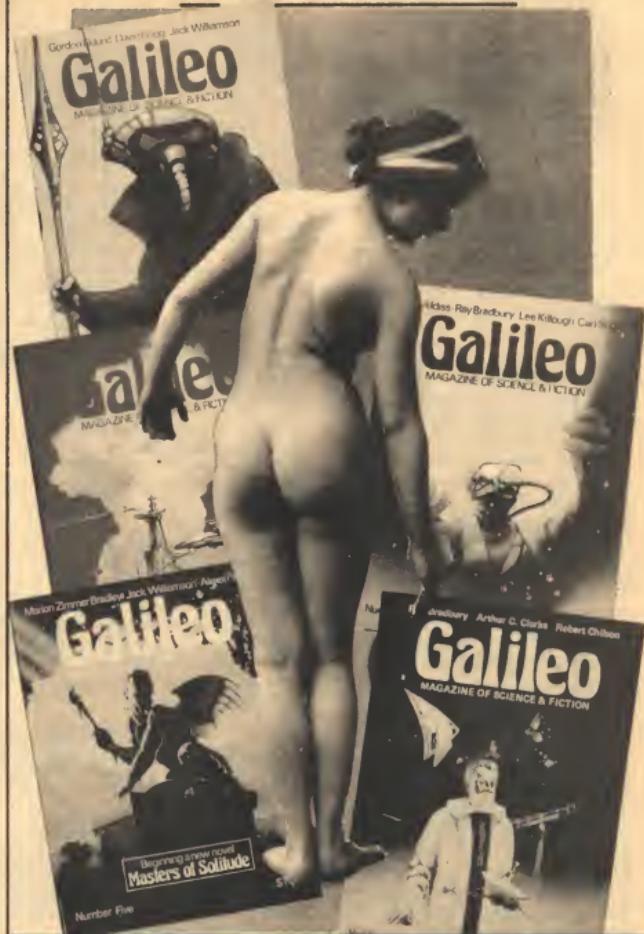
Watch the stories please. "Growing Up," for instance, in No.1, was a good story, carefully done, and evocative of an "alien" civilization, thought it was varying phases of humanity itself involved. A neat idea, and well worked out, in the main.

Now to flip the coin. O'Donnell's "Next Door Neighbor" has been used before. Sometimes the new neighbors are from our own future, overcrowded, over-regulated, and they get caught at the end, poor things. Even *Star Trek* had a variation on that idea in their Nova World script. Sometimes it's a galactic neighbor who dumps excess population on backward planets, and when the group in the story are so clumsy as to be spotted by mere Earthlings, they are snatched back in disgust. Etc., etc. Now this a perfectly sound story gimmick, but you need something to give it a new viewpoint, a new meaning. This story doesn't have that, the old gimmick is the story itself. Pfui!

And, in No.2, Lichtenberg's "Recompense" This is the pay-back, or "strange-encounter" tale, done with spaceships. You could find its counterpart in an 1890 *Strand Magazine* where the very correct British officer picks up a sick "wog" and forces everyone in the caravan to put up with them, and is practically ostracised as a result. When he finally pushes the chap into hospital, the last few paragraphs, at the Officers' Club, have the rescuer, gin sling in hand, say, "I don't give a hang for you chaps' opinion, but you do deserve an explanation. You see when I was a young officer, and not at all downy, there was this water-bearer, Gunga Din they called him. And one day..." But

*[Continued on next page]*

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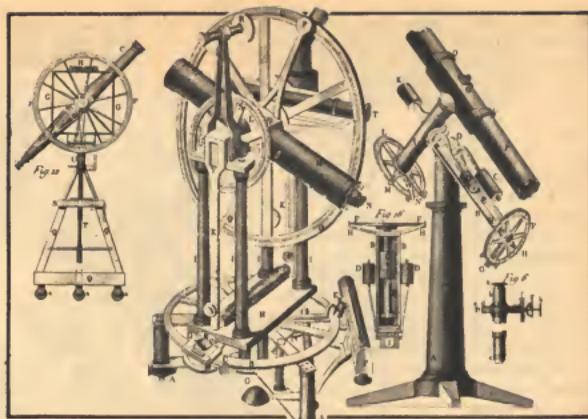
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# Telescope

Our future



**P**RAYERERS WERE said in the *Bathycosmic* before it moved forward into the NIF. The prayers were amplified and broadcast throughout the research vessel. Amplifiers on the outside of the ship caused the prayers to be broadcast through space, so that the ship was surrounded by a field of prayer...”

—*Non-Isotropic* by Brian Aldiss

“The Strugatskys are not writing mere satire or coded political tracts, but much in their work has application to current Soviet reality, and to the Stalinism which is past, and which has left such a scar on the Soviet present.”

—*Understanding The Strugatsky Brothers* by Patrick L. McGuire

## INQUISITION

[Continued from page 109]

you take it from there. Again, a useful basic story line, but you need something to make live and breathe. But here again, the gimmick is essentially the story. *Analog*, a year or so ago, had a serial with a variant on the theme, that handled it better. There was cultural clash woven in, a touch of the detective puzzle, a bit of future human mores, and, most important, a promise of new relationships being formed between entities. Even then, the ending was a bit weak.

Lastly, Foster's “Ye Who Would Sing” in No. 2. This is the virtue triumphs plot. Another good story line, always ready for a re-telling. But here it's handled in the old pulp fashion. And there's one major blooper that kills any

“The earth had gone mad, come alive, plunging and seething down to the river that boiled with the first black wave. Only for a moment could the obscene darting things be defined as separate shapes before more floundered out of the yellow tide, and more after them...”

—*The Masters of Solitude, Part Three*  
by Marvin Kaye and Parke Godwin

“We're responsible for his ideas about mating, whatever they are. He got them from the Library's books. It's up to us to keep him from wreaking havoc on the women of New York. Or the men. Or the pigeons.”

“So you want him to wreak havoc on me?!”

—*Capra Corn* by Connie Willis

effect it might have.

Some one once said, in a pulp story any important character can change his spots without explanation; in any literary story he can't without a damn good reason. In other words, people, not cardboard. Exceptions exist, of course. Somerset Maugham used to delight in making his puppets dance when a new tune was struck up. But he was a natural-born storyteller, and even his tales didn't always come off. It wouldn't have been hard to make Caitland something other than the great Stone Face.

But that isn't primary. Let's look at the actual bones of the story, as Foster tells it. He chooses to insist on the isolation of the valley. Useful, but not inescapable. He himself focuses the reader's attention on this point. But the

“Both Galileo and Newton achieved their most important discoveries by 'thought experiments' that they didn't or couldn't try out in actual physical experiments. And Newton fudged observational results because they didn't fit what he thought had to happen (and he was right).”

—*Extra-terrestrial Translation*  
by Justin Leiber

“Editors in New York are really amazingly strong people. Every day they have to resist buying a story from someone who needs the money in order to eat that day. The wonder is that any stories are bought from out-of-towners.”

—*An Interview With A.E. Van Vogt*  
by Jeffrey Elliot

old lady botanist seems to know a lot about current “chimer” studies, for someone so isolated. All right, not too important. (The idea of musical herbage isn't new, either.) But take that nice miner friend of hers. I should have friends like that! Electronics are most of her needs? Any bank I know of would have arrested that miner long ago. OK, call it nit-picking, though a little care would have fixed it. But after the insistence on isolation, and her statement that she was back to town only once, and, by implication, long ago. Yet in the same story, Caitland takes care of the old horse, Freia, and her colt! Whoa there! Where did the stallion come from? Or is Freia an unusual horse, who believes in virgin birth?

If this was important to the story, a sentence could have explained. But to

drop that in to do no more than break the reader's belief in the story is downright inexcusable.

You know who gets the primary blame for all this? The editor! I know he has a dozen other hats to wear, but that is why being an editor is such a job. To spot the story with weak construction, keep the bloopers from slipping by; that is all part of the day's work. The first story should have been shelved, the second re-written, and the third polished up.

R.J.F. Knutson  
Rockville Center, NY

#### ENCYCLOPEDIA GALACTICA

[Continued from page 23]

notable, organization debating celestial conduct is the United Nations. Though the U.N.'s intentions seem peaceful enough, participating countries already seem to be making convenient interpretations of the treaties passed. The most notable of these is satellite regulation; essentially, the sovereignty of nations dissipates proportionately to the altitude above them.

Well, assuming that we're all nice to each other and that we eventually get

off a space station in a grand worldwide effort, there is a problem of management. Are we in charge, or are they? Is each of the participating countries to keep its own laws on board? Robinson suggests that the colony should be independent, particularly by its second generation. These inhabitants will be, at first anyway, among the best Earth has to offer, and their dependence will probably fade. If never declared immune, would they then be preferred in Earth law? Their biology will differ, Skylab has already indicated that. Prolonged exposure, or permanent exposure, may require a degree of genetic engineering—a further distinction for preference?

But still, this is all homo sapiens culture and law. We are probably not alone, and we will probably confirm that soon enough. UFO pilots are not really the worry here, rather there's the matter of the lower life forms. Alien substances could prove to be toxins, but there are no laws governing potential diseases. Scientists will, of course, be prudent, but Robinson suggests that the "due process" clause of the Constitution might be violated by quarantines. Do Martian bugs have rights?

—G—

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112 GALILEO

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# Star Chamber

Harlan Ellison



OME YEARS ago Harlan Ellison was invited to be Guest of Honor at the 1978 World Science Fiction Convention; he accepted with pleasure. Now he finds this decision puts him, as he says, "between a rock and a very hard place, indeed." For Harlan Ellison believes passionately in the Equal Rights Amendment and the economic boycott of states not ratifying it which is now underway; Arizona has not ratified the ERA. To refuse to attend the convention would destroy the work of "good and decent fans who have worked so long and hard to put the Iguanacons together." On the other hand, Harlan Ellison would keep his principles as rigorous as his writing. So he has sought the advice of Joanna Russ, Ursula Le Guin, and Marion Zimmer Bradley, among others.

The solution arrived at is this: Harlan Ellison will attend the 1978 Worldcon, but he will do everything he can to withhold money from the state of Arizona and show his support of the ERA. He urges fans to do the same. Bring your own food; pitch a tent (Ellison will); avoid tourist facilities. Do for the ERA what Heinlein and SF fans have done for the blood drive. It will not be easy, but it offers the chance "just for once, in the world of SF, to walk the walk, and not just talk the talk."

—G—

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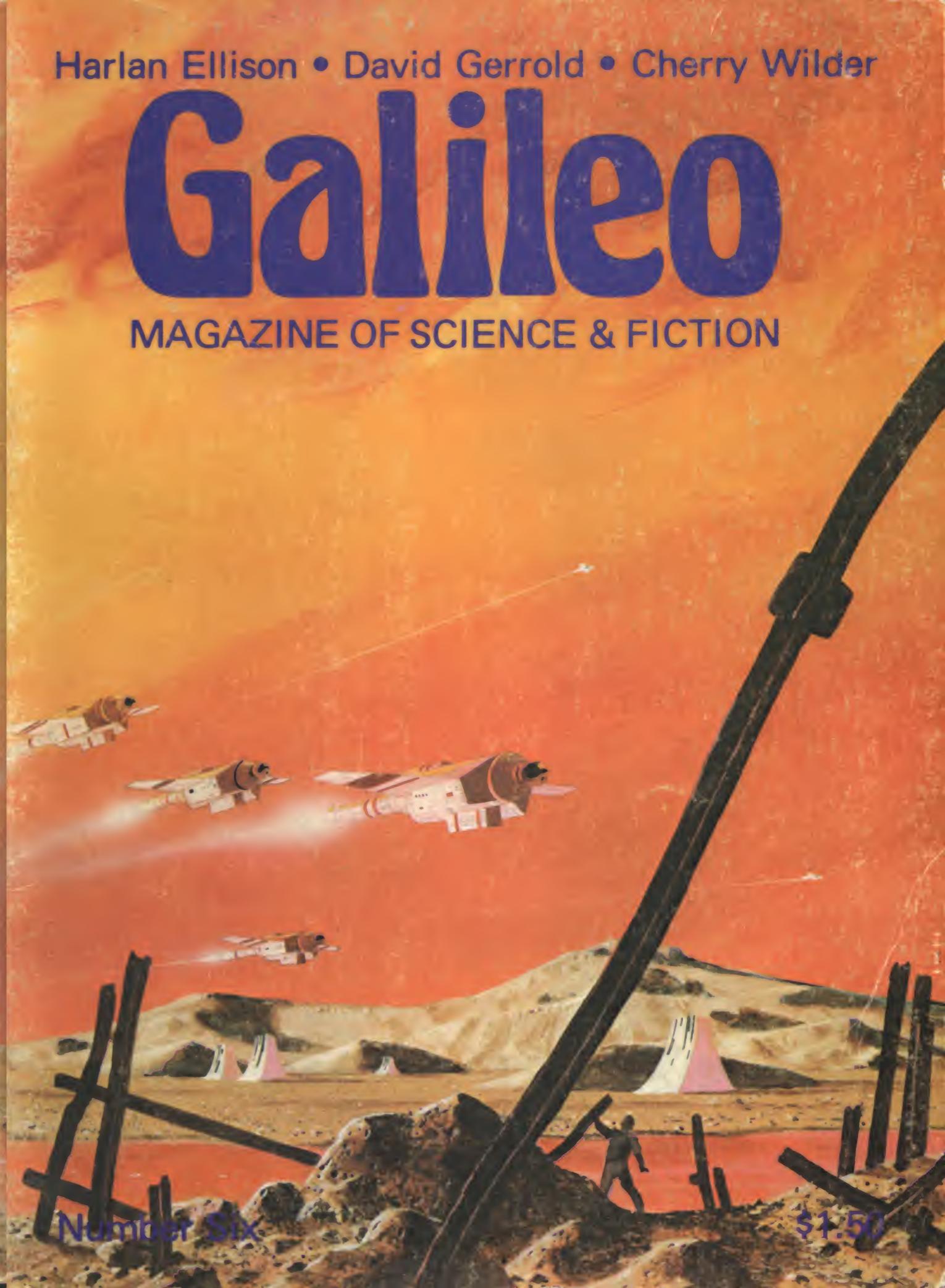


A collage of science fiction scenes. At the top, two astronauts in white spacesuits with brown helmets are floating in space against a red-orange gradient background. In the lower-left foreground, there's a large green, dome-shaped structure, possibly a geodesic dome or a greenhouse, with a small white satellite dish on top. The ground below is a mix of reddish-brown soil and some low-lying vegetation. In the distance, there are dark, jagged rock formations.

Harlan Ellison • David Gerrold • Cherry Wilder

# Galileo

MAGAZINE OF SCIENCE & FICTION

A collage of science fiction scenes. The upper half shows a group of four futuristic spaceships flying in formation through a red-orange atmosphere. One ship is prominently in the foreground, angled towards the viewer. The lower half shows a desolate, reddish-brown landscape with jagged rock formations. In the foreground, there are several black, skeletal remains of what might be destroyed structures or vehicles. A lone figure in a dark suit stands near one of these skeletal remains, looking out over the desolate terrain. A tall, dark, diagonal beam or antenna extends from the bottom right corner into the scene.

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